



# MICROTECH 144303271 Computerized Double Column Height Gauge User Manual

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**MICROTECH 144303271 Computerized Double Column Height Gauge**



## SPECIFICATION

### MANUAL MICRON height gauge

| Item No   | Range  | Resolut. | Accu-<br>racy | 2D connection | Measuring HUB | Graphic | Analog scale | Preset | Go/NoGo | Max/Min | Formula | Timer | Temp comp | Linear corr | Calibr date | Recharge | Memory | WIRELESS | USB |
|-----------|--------|----------|---------------|---------------|---------------|---------|--------------|--------|---------|---------|---------|-------|-----------|-------------|-------------|----------|--------|----------|-----|
|           | mm     | mm       | μm            |               |               |         |              |        |         |         |         |       |           |             |             |          |        |          |     |
| 144303271 | 0-300  | 0,001    | ±15           | •             | •             | •       | •            | •      | •       | •       | •       | •     | •         | •           | •           | •        | •      | •        | •   |
| 144306271 | 0-600  |          | ±20           | •             | •             | •       | •            | •      | •       | •       | •       | •     | •         | •           | •           | •        | •      | •        | •   |
| 144310271 | 0-1000 |          | ±30           | •             | •             | •       | •            | •      | •       | •       | •       | •     | •         | •           | •           | •        | •      | •        | •   |

### TOUCH PROBE MICRON height gauge

| Item No   | Range   | Resolut. | Accur. | Touch Probe | 2D connection | Measuring HUB | Graphic | Analog scale | Preset | Go/NoGo | Max/Min | Formula | Timer | Temp comp | Linear corr | Calibr date | Memory | WIRELESS | USB |
|-----------|---------|----------|--------|-------------|---------------|---------------|---------|--------------|--------|---------|---------|---------|-------|-----------|-------------|-------------|--------|----------|-----|
|           | mm      | mm       | µm     |             |               |               |         |              |        |         |         |         |       |           |             |             |        |          |     |
| 144303281 | 20-320  | 0,001    | ±10    | •           | •             | •             | •       | •            | •      | •       | •       | •       | •     | •         | •           | •           | •      | •        | •   |
| 144306281 | 20-620  |          | ±15    | •           | •             | •             | •       | •            | •      | •       | •       | •       | •     | •         | •           | •           | •      | •        | •   |
| 144310281 | 20-1020 |          | ±20    | •           | •             | •             | •       | •            | •      | •       | •       | •       | •     | •         | •           | •           | •      | •        | •   |

#### MANUAL 2D height gauge

| Item No   | Range  |       | Resolut. |        | Accu-<br>racy | 2D connection | Measuring HUB | Graphic | Analog scale | Preset | Go/NoGo | Max/Min | Formula | Timer | Memory             | WIRELESS         | USB              |
|-----------|--------|-------|----------|--------|---------------|---------------|---------------|---------|--------------|--------|---------|---------|---------|-------|--------------------|------------------|------------------|
|           | Z      | X     | Z        | X      |               |               |               |         |              |        |         |         |         |       |                    |                  |                  |
|           | mm     | mm    | mm       | mm     | µm            |               |               |         |              |        |         |         |         |       |                    |                  |                  |
| 144303371 | 0-300  | 0-25  | 0,001    | 0,0001 | ±15           | •             | •             | •       | •            | •      | •       | •       | •       | •     | Folders / 2000 val | Long range / HID | USB HID / Update |
| 144306371 | 0-600  |       |          |        | ±20           | •             | •             | •       | •            | •      | •       | •       | •       | •     |                    |                  |                  |
| 144306372 |        | 0-50  |          |        |               | •             | •             | •       | •            | •      | •       | •       | •       | •     |                    |                  |                  |
| 144310371 | 0-1000 | 0-25  |          |        | ±30           | •             | •             | •       | •            | •      | •       | •       | •       | •     |                    |                  |                  |
| 144310372 |        | 0-50  |          |        |               | •             | •             | •       | •            | •      | •       | •       | •       |       |                    |                  |                  |
| 144310373 |        | 0-100 |          |        |               | •             | •             | •       | •            | •      | •       | •       | •       |       |                    |                  |                  |

#### TECHNICAL DATA

| Parameters             |                                      |
|------------------------|--------------------------------------|
| LED display            | color 3,5 inch 480x320               |
| Indication system      | MICS 4.0                             |
| Power supply           | Rechargeable Li-Pol battery 2000 mAh |
| Charging port          | micro-USB                            |
| Case material          | Aluminium                            |
| Wireless data transfer | Long range / HID                     |
| USB data transfer      | USB HID                              |

#### MAIN INFO



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

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

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

**DATA TRANSFER** - programming throw menu

## DOWNLOAD APP



## DOWNLOAD THE MDS APP FOR MICROTECH DEVICES

WIRELESS CONNECTION FROM [www.microtech.ua](http://www.microtech.ua), GooglePlay & App Store

## DATA TRANSFER 3 MODES OF DATA TRANSFER (USB + 2 WIRELESS MODES)

## WIRELESS CONNECTION TO MDS APP

WIRELESS data transfer to MICROTECH  
MDS app for Windows, Android, iOS



**FREE SOFTWARE**



**NO DONGLE**

## WIRELESS HID CONNECTION USB HID CONNECTION



**NO DONGLE**

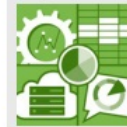
WIRELESS HID and USB HID data  
transfer (like keyboard) direct to any  
customers app and system



SAVING DATA  
TO XLS. CSV  
FORMATS



TRANSFER DATA TO  
CAD, SPC OR OTHER  
SOFTWARE



TRANSFER DATA TO  
EXCEL OR OTHER  
TABLE EDITORS



SAVING  
GRAPH



TRANSFER DATA TO  
CAD, SPC OR OTHER  
SOFTWARE



TRANSFER DATA TO  
EXCEL OR OTHER  
TABLE EDITORS

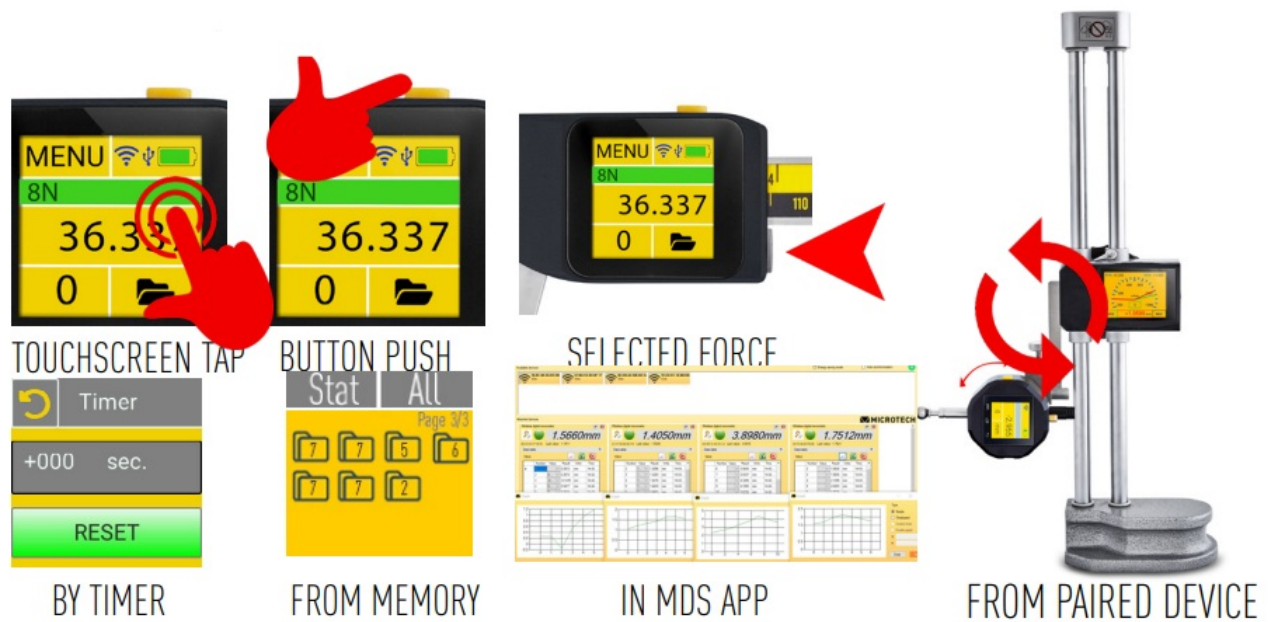


TRANSFER DATA  
TO ANY BROWSWE  
OR APP

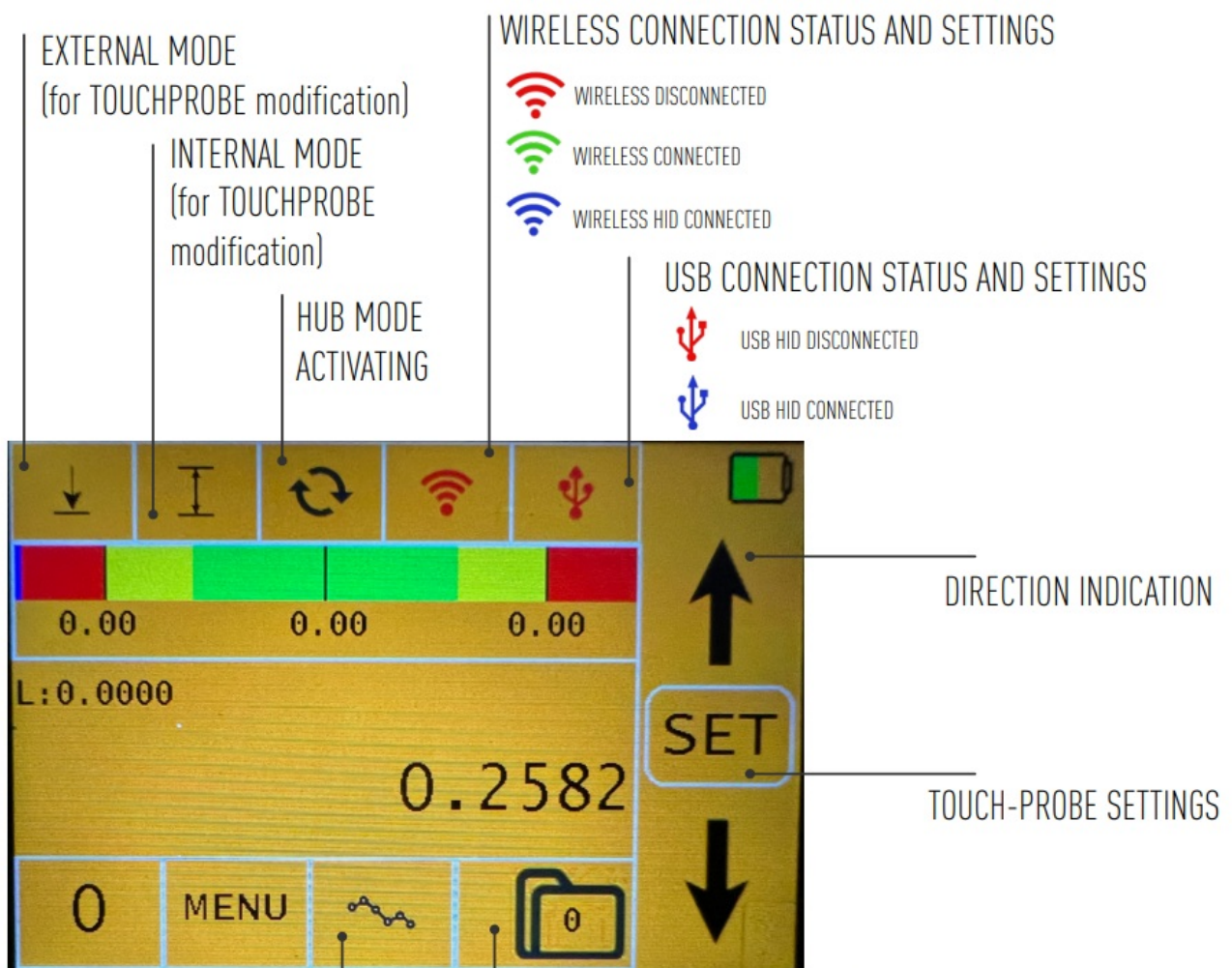
- WIRELESS CONNECTION TO MDS app
- WIRELESS data transfer to MICROTECH
- MDS app for Windows, Android, iOS

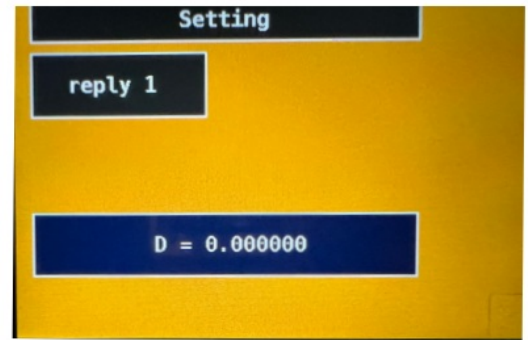
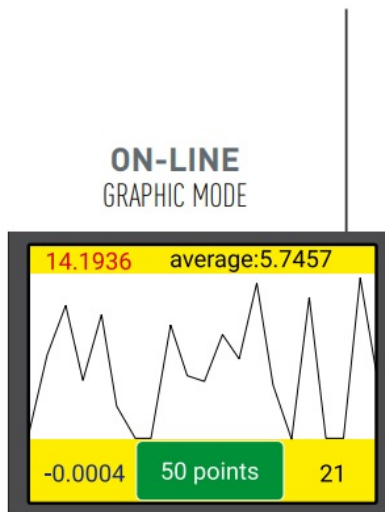
## 7 WAYS HOW TO TRANSFER DATA TO PC OR TABLET





## MAIN SCREEN

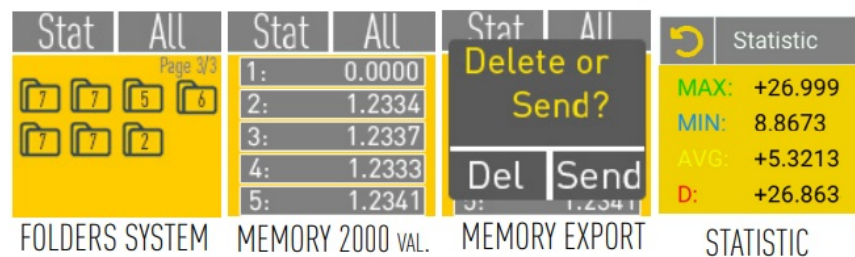




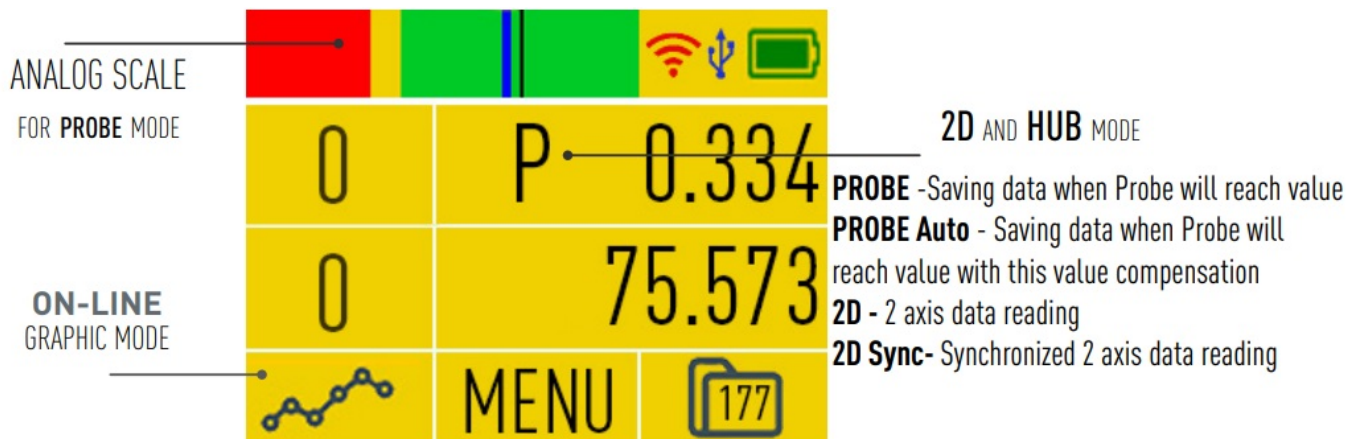
## MEMORY

STANDARD or FOLDER system can be activated throw MEMORY menu

For save measuring data to internal device memory touch data area on screen or button push. You can view saved data or send by WIRELESS or USB connection to Windows PC, Android or iOS. It's possible to use Standard or Folders memory modes



## MAIN SCREEN on 2D mode



## MENU DISPLAY



#### NAVIGATION IN THE MENU BY TOUCHSCREEN

EXIT FROM FUNCTION – TOUCHSCREEN SWAP or BUTTON PUSH (1s)

#### FUNCTIONS



## LIMITS mode GO/NOGO



MAX - NoGo more Upper limit  
 MIN - NoGo less Lower limit  
 RANGE - Go between Limits  
 NONE - Analog scale active

## COLOR INDICATION LIMITS ON MAIN SCREEN Go NoGo

|       |       |                             |
|-------|-------|-----------------------------|
| >     | 2.000 | Upper limit                 |
| <     | 3.000 | Lower limit                 |
| %     | 20    | Yellow zone on analog scale |
| SCALE | RES   |                             |

## PEAK mode MAX/MIN



DISABLE - non active mode  
 ENABLE - activating mode  
 REFRESH - refresh peak value according timer

## INDICATION AND SAVING MAX OR MIN VALUES

|         |                                                       |
|---------|-------------------------------------------------------|
| Max/Min |                                                       |
| Enabled | MAX - indicating MAX measured value                   |
| MAX     | MIN - indicating MIN measured value                   |
|         | RANGE - indicating difference between MIN & MAX value |

## TIMER mode



## SAVING DATA TO MEMORY OR SENDING WIRELESS/USB BY TIMER

|           |                          |
|-----------|--------------------------|
| Timer     |                          |
| 0.000 sec | Select timer period      |
| Reset     | Reset to deactivate mode |

## FORMULA mode



|             |                                             |
|-------------|---------------------------------------------|
| Formula     |                                             |
| $Ax^2+Bx+C$ | Select FORMULA Type (Math, Radius or other) |
| Set Argv    | Select arguments                            |

## RESOLUTION selection



|            |                      |
|------------|----------------------|
| Resolution |                      |
| X.0000     | Resolution selecting |
| mm         | mm/inch conversion   |

## DISPLAY settings



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)

|           |                                      |
|-----------|--------------------------------------|
| Display   | Display rotation 0°, 90°, 180°, 270° |
| Angle 270 |                                      |
| Sleep ON  |                                      |
|           | Brightness level                     |

## LINEAR error compensation



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

|           |     |
|-----------|-----|
| O: 17.251 |     |
| C: 17.258 |     |
| UP        | OK  |
| DN        | RES |

## Linear correction error's on device

actual values

correct values by up&down button

confirm point correction

## TEMP compensation



Manual Temperature setting

|               |     |
|---------------|-----|
| Temp.com.     |     |
| Cu, Cu alloys |     |
| 27.5°C        | RES |

4 types of material for selection:

- Glass, Quartz
- Stainless steel
- Cuprum and alloys
- Alluminium and alloys

## LINK to app's



QR Link to MICROTECH web site page with MDS Software download

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



## RESET to Factory settings



|                  |
|------------------|
| Extra            |
| Reset to factory |
| Firmware update  |

Push 10 times to RESET device to factory settings

Push 10 times to FIRMWARE UPDATE

## EXTRA



|        |
|--------|
| Extra  |
| Normal |
| Set K  |

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

Coefficient setting (for distributor and calibration only)

## CALIBRATION date info



|                |
|----------------|
| Display        |
| Day Month Year |
| 1 1 2023       |

Push for change calibration date info

## Device INFO

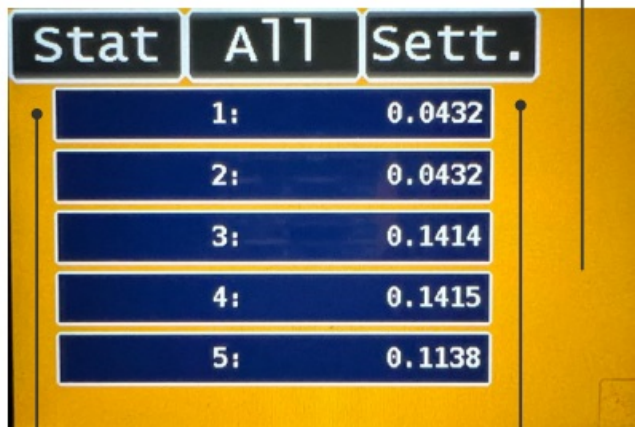


|                   |
|-------------------|
| MICROTECH         |
| www.microtech.ua  |
| FW 4.0.37         |
| XX:XX:XX:XX:XX:XX |

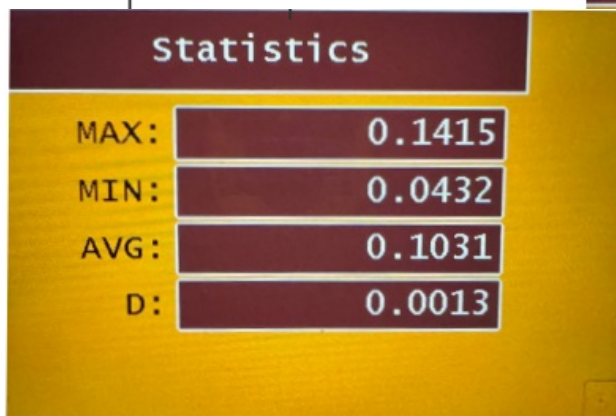
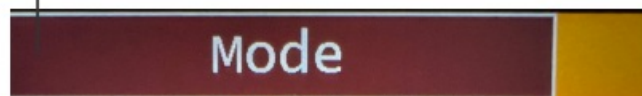
Information about device

- Firmware version
- MAC adress for WIRELESS connection

## MEMORY



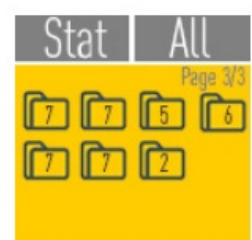
STANDARD or FOLDER system can be activated throw MEMORY menu



Values in each Folder

| Stat | All    |
|------|--------|
| 1:   | 0.0000 |
| 2:   | 1.2334 |
| 3:   | 1.2337 |
| 4:   | 1.2333 |
| 5:   | 1.2341 |

STANDARD MODE



FOLDERS MODE

## DATA TRANSFER MODES

## WIRELESS CONNECTION STATUS AND SETTINGS



## USB CONNECTION STATUS AND SETTINGS



## WIRELESS data transfer



Reconnection button  
Wireless power  
regulation



**ON** - WIRELESS data transfer to MDS App for Android, iOS, Windows  
**HID** - WIRELESS HID direct transfer data to any App in Windows, MacOS, Linux, Android devices (like keyboard). Configure data format in USB sub-menu  
**2D-S** - Slave device on WIRELESS connection on HUB mode  
**2D-M** - Master device on WIRELESS connection on HUB mode

## USB OTG data transfer



**Connect USB cable to PC & Activate USB HID connection mode**  
 Select setting of data transfer  
 Direct transfer data to any App in Windows, MacOS, Linux, Android devices  
 Configuring data transfer Dot/Comma and Tab/Arrow Down/CR+LF

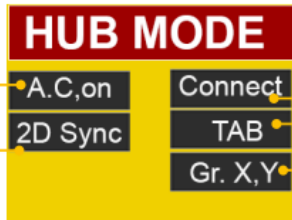
**HUB MODE ACTIVATING**



# 2D MODE



**A.C.on** - Auto Connection active  
**A.C.off** - Auto Connection no active



External Wireless device connection

Symbol between Axis

Graphic mode indication setting

**PROBE** - Saving data when Probe will reach value

**PROBE Auto** - Saving data when Probe will reach value with this value compensation

**2D** - 2 axis data reading

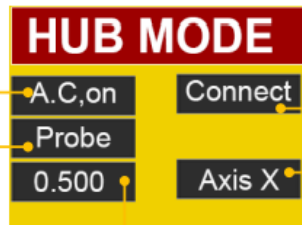
**2D Sync** - Synchronized 2 axis data reading

**Disable** - switch off modes

## 2D CONNECTION PROCESS

1. Slave device WIRELESS menu- 1.1 Push CLEAR button and 1.2 Activate 2D Slave mode 2D-S
2. MASTER device WIRELESS menu- 2.1 Push CLEAR button and 2.2 Activate 2D Master mode 2D-M
3. MASTER device HUB connection menu- 3.1 Activate 2D or 2D Sync mode and 3.2 Setting A.C.on /off (auto-reconnect) and 3.3 setting of saving on memory and transfer data (X, Y, or XY synchronized)
4. MASTER device HUB connection menu- 4.1 Push the CONNECT button and start searching Slave devices (40s)
5. push for the MAC address of the indicated slave device to start the connection. 4.3.
6. If the MASTER device indicates SUCCEFULL CONNECTION – you can start measurings, but If the MASTER device indicates CONNECTION ERROR – re-connect the devices again (from step 1).

**A.C.on** - Auto Connection active  
**A.C.off** - Auto Connection no active



External Wireless device connection

Axis priority selecting

Setting PROBE limit value

**PROBE** - Saving data when Probe will reach value

**PROBE Auto** - Saving data when Probe will reach value with this value compensation

**2D** - 2 axis data reading

**2D Sync** - Synchronized 2 axis data reading

**Disable** - switch off modes

## VIDEO INSTRUCTION of 2D and PROBE MODE CONNECTION





## MICROTECH

innovative measuring instruments

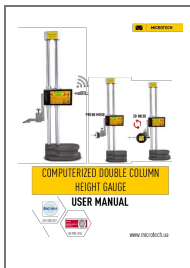
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[www.microtech.ua](http://www.microtech.ua)

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

## Documents / Resources



**[MICROTECH 144303271 Computerized Double Column Height Gauge](#)** [pdf] User Manual  
 144303271, 144310271, 144303281, 144310281, 144303371, 144306371, 144306372, 144310371, 144310372, 144310373, 144303271 Computerized Double Column Height Gauge, 144303271, Computerized Double Column Height Gauge, Double Column Height Gauge, Column Height Gauge, Height Gauge, Gauge

## References

- [User Manual](#)

## **Manuals+. Privacy Policy**

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