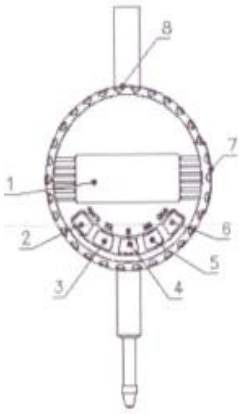
The user's manual is for Digital surface profile gauge of 0-1.0/3.0 mm(5keys)

1.LCD display 2.mm/in conversion key 3.tolerance(TOL)setting key 4.M(function key)
5.ABS key
6.ON/O key 7.Data output cap 8.Battery compartment

- **TECHNICAL SPECIFICATIONS**

Resolution;0.001mm
Power supply;1.5V silver-zinc button cell(SR44×1pc)
Operation temperature:0 ～ +40



Storage temperature ; -10～+60
Operation humidity;=80%

- **FUNCTION**

1.zero setting at any point
2.mm/inch .conversion at any point
3.Data holding
4.Fast tracing MAX value
5.Fast tracing MIN value
6.Fast tracing jumping value
7.Tolerance value judgement
8.Absolute value measurement
9.Remote transmission of wire data

- **OPERATION**

1.PREPARATION
Clean all surfaces of Digital Micron Indicator with dry and soft cloth.
2.ON/O FUNCTION
Press ON/O key and switch on power to make contact point touch measured workpiece and reduce about 0.2mm.Then press shortly ON/O key to enter measuring mode .In incremental mode(give mode ,REL will display at the bottom of LCD),press ON/O shortly to set zero at any measuring point. Display will be changed from ABS to REL at the bottom of LCD .The LCD display incremental value. If one presses ON/O key again ,it will set zero. Press ON/O key long switch off power
3.MM/IN key(as 2nd part of structure of Digital Micron Indicator);
Press mm/in key shortly to select mm/in and LCD display mm or in.

4.SPECIAL FUNCTION KEY(M KEY)

A. Select data HOLD; press shortly M key, LCD will display “HOLD” on the right corner .The measured value at this point remains unchanged for reading and record. HOLD function will be cancelled and turned to normal display by pressing M key again shortly.

B. Select MAX(fast tracing MAX);Press M key long till MAX displays.

Displayed value is the MAX value during measurement. Press M key again to reset as measured value for current point and it will take new measurement. After fast tracing MAX, press M key long to display MIN and re-press M key long to display △ and then RE-press M key again, the toppest line on LCD disappears .At this point, it enters normal measuring mode. It could also enter normal measuring mode by switching on power again upon switching off.

C. Select MIN (fast tracing MIN);it keeps Digital Micron Indicator at measuring mode .Re-pressing MIN key long till MIN displays on LCD after LCD display MAX.When measearing,displayed value is MIN value during measurement.Upon fasttracing MIN,press MIN key long to display△and re-press MIN key long,the toppest line on LCD disappears.At this point,it enters normal measuring mode.It could also enter normal measuring mode by switching on power again upon switching off.

D.Select △ (fast tracing jumping value):repeat pressing M key long still△display at measuring mode and display value sets zero automatically and the value △ =MAX-MIN when measuring. Press M key long for one time and the toppest value on LCD disappers and then it enters normal measuring mode after ending this function .It could also enter normal measuring mode by switching on power again upon switching off.

5.TOL FUNCTION

Move Digital Micron Indicator to one(uper or lower)limit value,press TOL key long to set TOL.TOL SET will appears on the left corner of LCD,then it fnishees setting the limit value.Move again Digital Micron Indicator to another(lower or upper)limit value,press TOL key long TOL will appers on the left corner of LCD.Then it finishes setting the limit value.At this point,TOL setting is finishend and system will enter TOL judgement mode automatically.During measurement,LCD will display GO if measured value is between upper limit value and lower limit value.LCD will display NO GO and flash if measured value is over upper/lower limit value.Press TOL key shortly to leave TOL judgement mode.Press TOL key shortly to return to TOL mode as set last time.

6.ABS FUNCTION

The given mode of Digital Micron Indicator is incremental mode and REL wll display on the right corner of LCD.Prss ABS long and SET will appear on LCD bottom.The first digit on LCD flashes;ON/O shortly,the digit will be changed from 0 to 9 by turn.Prss ABS shortly to enter next digitsetting after selecting proper number.The MAX value is 99.999.Press ABS long to display ABS at the bottom of LCD when setting is finished.Digits are no longer flashing.At this time it enters absolute measurement mode.If you need cancel absolute mode,just press ON/O key shortly(kindly refer to point 2 for operation).

7.DATA TRANSMISSION WAY

Open a data output cap,insert one end of standard USB cab(for extra purchase)into digital

Micron Indictor and connect the other end of it to data collecting adapter made by Guanglu (for extra purchase)before connecting PC(USB or synchronous series)
Here is data transmission parameters:
A.Data transmission:Binary code
B.USB cable;Five wire(from right to left):Negative power(-),zero clearing,Data D,clock Pluse CP,positive powe(+)
C.Pluse Range of data:LowLevel=0.2v,High level=1.3v
7、using screwdriver loosen the locking screw ,adjusting the grip to make needle show an appropriate length ,then using screwdriver tighten the locking screw . The showing length of needle is the range , adjustable range is 0-3 mm
8、Needle softly touch the plate ,pushing down the grip to make the bottom of grip totally touch the plate ,then clearing the dial gauge to zero .
9、The needle aim at holes or pits ,pushing down the grip to make the bottom of grip totally touch workpiece ,then reading out the value is the depth of holes or pits
Notice: Needle is very thinner , to prevent broken it ,please operation carefully and put light .

- **BATTERY REPLACEMENT**

Open battery compartment to take out the old battery and insert the new one into the battery seat .Kindly note the negative side must face out and then put in the battery cap .If a new digital micron indicator shows unclear digits ,flash digits or displays nothing etc .it might be caused by low battery from battery discharge. Thus, you should change for a new battery.. If one buys a battery from the mark, kindly make sure it has full live battery.

- **NOTES**

1.Moving speed of Digital Micro Indicator spindle should be less than0.35m/s.
2.Being delicate instrument Digital Micro Indicator should be prevent from being clashed and dropped in use for fear of damage precision
3. Digital Micro Indicator must be kept clean ,water ,oil and other liquids must be prevented from entering it for fear of damaging electronic parts
4.The surface of Digital Micro Indicator should be cleaned with pure alcohol and never use organic solution such as aceton
5.Don’t remove the date output cap when it is not in use
6.No voltage should be applied on any parts of Digital Micro Indicator and never cave on it with electric pen for fear of damaging the electronic circuit .Never touch and test high voltage; never connect DC voltage over 1.5v;never connect 1.5v AC voltage for fear of damaging electronic circuit
7.Switch off power key after using to extend battery life
8.Take out the battery if it is not used for a long time

- **BEIEF ON MAINTENANCE**

Troubles	Possible Cause	Solutions
Flashing digits	Low voltage	Replace the battery
No Display	1.Low voltage 2.Poor contact	1.Replace the battery 2.Adjust and clean the battery seat
Fixed digits	Wrong software running	Take out the battery and put in back after one minute