

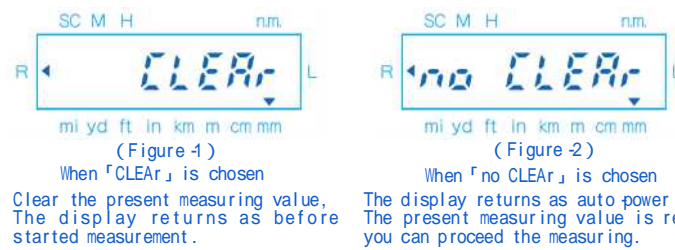
Setting the condition when returns from auto power off

By setting the condition when returns from auto power off, you can chose the starting condition after auto power-off function worked, from "returns into process of present measurement" or "delete the present value and re-start from "0" in curvimeter mode.

Confirm that it's in curvimeter mode. If it's in counter mode then, press the **COUNT** key to returns curvimeter mode.

Press the **SET** key, the display showing Figure-1 or Figure-2.

Every time you press the **END** key, display changes Figure-1 and Figure-2 alternately. Choose between Figure-1 and Figure-2. Press the **SET** key. The setting is done and returns to curvimeter mode.



(Figure-1) When 'CLEAR' is chosen
Clear the present measuring value. The display returns as before started measurement.

(Figure-2) When 'no CLEAR' is chosen
The display returns as auto power off worked. The present measuring value is remaining and you can proceed the measuring.

When the power is turned off, this setting is stored in memory. However, when changed battery, the setting returns initial condition 'CLEAR' if you chose 'no CLEAR' then set it again.

Setting a reduced scale



Not in measuring condition, press the **SCALE** key. '0' is displayed on left side of display, '0' shows it's in setting a reduced scale. And previous reduced scale is displayed. The last digit is blinking.

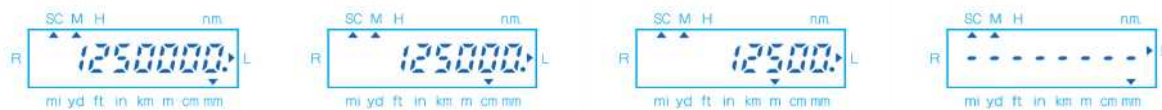
Set the reduced scale ratios by using numeric keys. You can use all keys as a numeric key.
<Example>
When the reduced scale is 1/50000 then enter 50000.

Press the **END** key, the setting is done and indicator is points to 'SC'. If the measurement value is displayed, the value is converted.

When setting the magnified ratios, set the decimal value (1 ÷ magnified ratios).
<Example> When the ratios is 10 times, 1/10=0.1 then enter "0.1". When the ratios is 25 times, 1/25=0.04 then enter "0.04".
When setting the reduced scale at "0", the scale is set 1/1 automatically. When the scale is 1/1, indicator is disappear.

Setting a unit required

Not in measuring condition, press the **UNIT** key. Every time you press the **UNIT** key the indicator is move and displays a converted value (measurement value, average value).



Assuming that the displaying as above.

Confirm that it's not in measuring, press the **UNIT** key. The unit is move to 'cm' and converted value is displayed.

Press the **UNIT** key again. The unit is move to 'm' and converted value is displayed. Press the **UNIT** key, until the indicator is move to required unit.

When converted value is exceeds 8 digit then the result is displayed as above.

Every time you press the **UNIT** key, the indicator moves, mm cm m km in ft yd mi nm, in order.

Setting a measuring direction

Not in measuring condition, press the **R/L** key. Every time you press the **R/L** key, measuring direction is changes, L R R/L in order.

"direction" is exact opposite of user's view.
L Left direction is plus, Right direction is minus
R Right direction is plus, Left direction is minus
R/L Both directions (Right and Left) are plus



Plus measurement direction

Plus measurement direction

Plus measurement direction

Plus measurement direction

Assuming that the displaying as above. The indicator points to 'L'. Direction to right of user's view is plus measurement.

Press the **R/L** key. Indicator will be move from 'L' to 'R'. Direction to left of user's view is plus measurement.

Press the **R/L** key again. Both indicator is displayed and both directions are plus measurement.

Press the **R/L** key again. The indicator returns to 'L' only.

Basic measurement



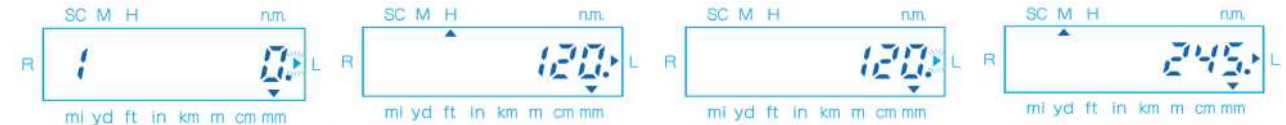
Set the trace point to the starting point. Press down the **S·H** key and the measurement can be started. The number of times to measure is displayed on the left side of screen, the indicator which points plus measurement direction ('R' or 'L', both) is blinking and shows it's in measurement.

During measurement, the number of time to measure is disappear, the values which converted by reduced scale and unit required is displayed.

By pressing the **END** key, the measurement is over. The measurement results is accumulated in the memory, indicator points 'M'.

When the measurement results is "0", and the **END** key pressed and measurement is over, the value is not accepted and the number of times to measurement is not added. The measurement value displayed after convert with reduced scale and unit required is displayed.

Accumulate the measuring values



Set the trace point to the starting point. Press down the **S·H** key and the measurement can be started. The number of time to measure is displayed on the left side of the display, the indicator which points plus measurement direction ('R' or 'L', both) is blinking and shows it's in measurement.

Ending 1st measurement by press down the **S·H** key. The measurement values is paused. And indicator points 'H', and the measurement value is not change even if the measurement wheel is moved.

Move to 2nd line and press down the **S·H** key then the pause is canceled and continuance measurement is started. The indicator which pointed 'H' is disappear. The measurement value is added to 1st measurement value.

By pressing the **END** key, the measurement is over. The measurement result is accumulated in the memory, indicator points 'M'.

Average value

By pressing the **AVE** key, average value is computing and delete memory value. 10 time measurement values can be accumulated in the memory. Please make sure that when exceed 10 time, the values in memory is deleted and reverse to 1st.



Confirm that it's not in measuring, assuming that starting from 1st measurement. If the indicator is pointing 'M' then press the **MC** key to delete the values in memory and clear the displaying value.

Measure the same line more than once (available until 10 time), after measurement, press the **AVE** key then the average value is displayed. And the indicator which pointed 'M' is disappear and values in memory are deleted in same time.

How to use the Cancel key (CAN)

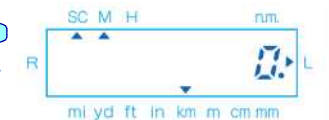
This key use to cancel the present measurement because of trace error etc. When this key is pressed during measurement, the value is cleared and not accumulated in memory.

<Example> Assuming that the 5 time measurement is over.

(a) Start 6th measurement.



(c) By pressing the **CAN** key, the measuring value is return to "0" and the display is reverse to when 5 time measurement is over.



(d) By pressing down the **S·H** key, 6th measurement is started again.



Counter function



Not in measuring condition, by pressing the **COUNT** key, the function is switched to counter mode.
All the indicators are disappear and values in memory are deleted.
By pressing down the **S·H** key, 1 is added to count value.
By pressing the **END** key, 1 is subtract from count value.

Setting the count preset number

By setting the count preset number, alarm notify that the count reached to preset number.

<Example>

Count preset number sets to 10, 20, 30, 40...alarm sounds at every multiple number of ten. (Alarm sounds also in minus count)
Count preset number setting is just like reduced scale setting.

In Counter condition, by pressing the **COUNT** key, the function is switched to curvimeter mode.

In counter mode, auto power-off function does not work. Please make sure to turn off by press the **OFF** key in counter mode.

Turn on and the initial settings

Press the **ON** key to turn on. When turned on, following settings are remains as previous.

- a) Reduced scale ratios
- b) Unit
- c) Values in memory
- d) The number of times to measure
- e) Plus measurement direction
- f) Designated SET condition
- g) Count preset number

The initial settings at purchase time or re setting when replace the batteries are set as follows,

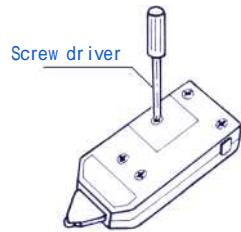
- a) Reduced scale ratios 1:1
- b) Unit mm
- c) Values in memory 0
- d) The number of times to measure 0
- e) Plus measurement deriction R (Right)
- f) Designated SET condition CLEAR
- g) Count preset number 0

Auto power off function

For saving power, the power supply is turned off automatically in 10 minutes after the last operation. However, in counter mode, this function does not work. Please make sure to turn off by press the **OFF** key when in counter mode.

Replace the batteries

When a display becomes light and difficult to see, it's means attrition of the batteries, replace the batteries by following procedure.



Turn off the power, take out a screw of battery cover.



Bring out the euhred batteries, wipe up the new batteries by dry cloth and confirm + . - and replace. (Pole is instructed inside of the battery case). Put back the battery cover and tighten up a screw.



Press the **OFF** key and the **ON** key, confirm the display showing like above figure.
If it's not or lifeless when the key is pressed then confirm the procedure again.

By replacing the batteries, all setting

Press the the **END** key and the **ON** key at the same time, you can initialize the all setting by this operation.

Caution

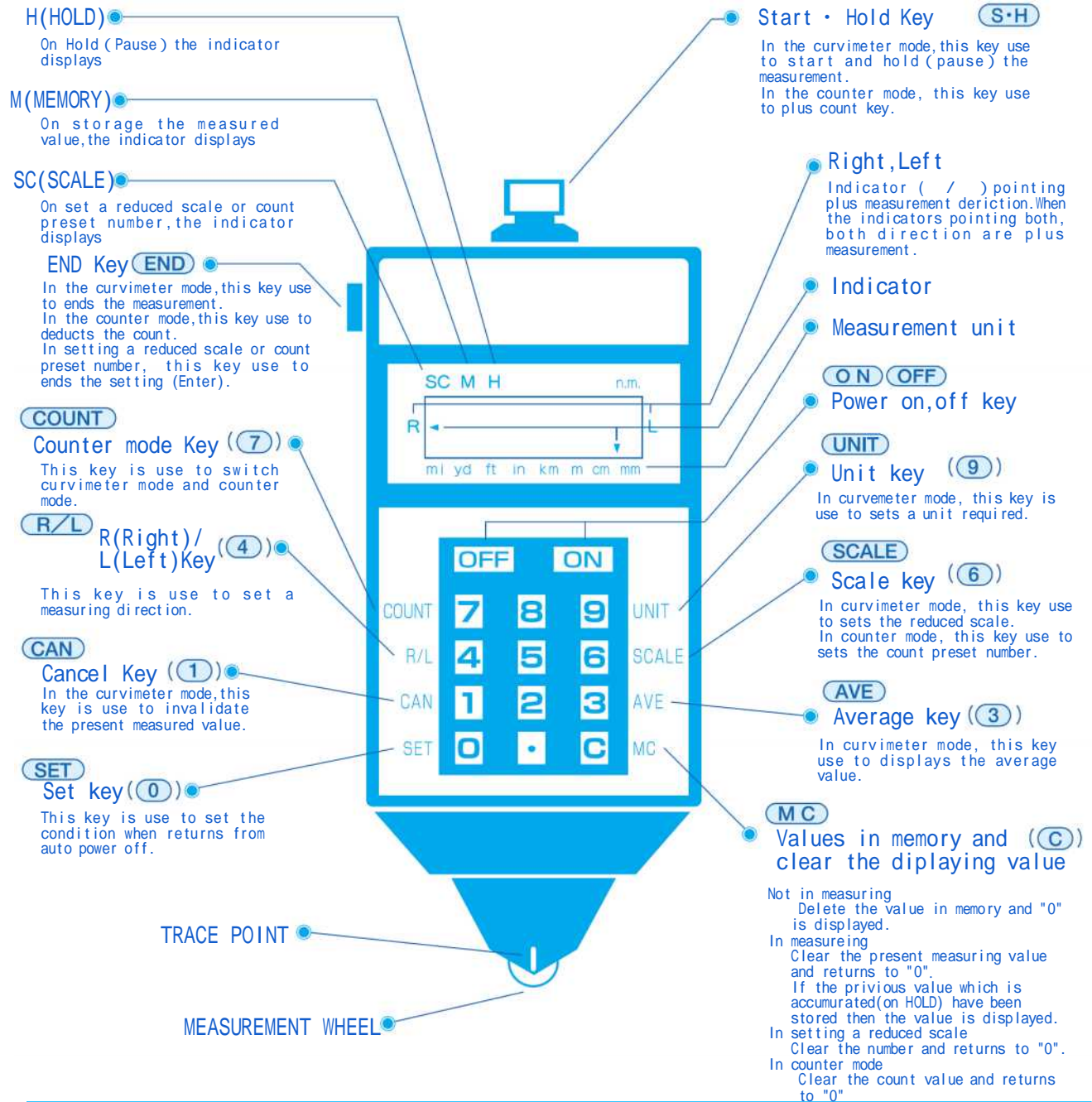
Don't drop or allow any sudden impact, it may cause of damage.
Don't leave hot and humid locations in long time such as near a heater, open flame or in direct sunlight, high temperature may cause of trouble.
Use a dry and soft cloth to clean. Don't use any wet dust cloth or volatile cleaners, such as paint thinner, benzene etc.
There are several screws in backside of main body, don't loosen or take out a screws except the screw of battery cover. it may cause of inaccuracy and trouble.

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INSTRUCTION MANUAL for COMCURVE-5



SPECIFICATIONS AND FUNCTIONS

DISPLAY : Original liquid crystal display
(a) Digit number of value : 8 digit
(b) 14 indicators
9 Units

SC : SCALE
M : MEMO
H : HOLD
R : RIGHT
L : LEFT

Main element : LSI (Original Microcomputer)
Sensor element : original rotary encoder

Range of measurement : 100m (Exact size)

Minimum display : 1mm

Accuracy : Within 3/1000mm

(According to our internal inspection standards)

Units for display :

(a) Metric systems / mm cm m km
(b) Inch systems / in ft yd mi
(c) Nautical mile / n.m

Curvimeter mode
Setting a reduced scale, Setting a unit required,
Hold (Pause) measurement, Accumulate the measuring values
Computing an average value, Setting a measurement direction

Counter mode
Counting function of 6 digits, Setting a count preset number
Power saving function : Auto power-off function (Approx. 10 minutes but it does not work in counter mode)

Power source : Alkaline manganese battery LR-44 2pcs

Continuous use hours : approx. 300 hours
Working temperature : 0 ~ 40
Storage temperature : -20 ~ 60