

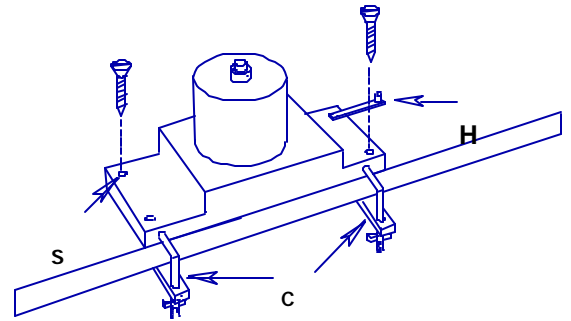
BRIEF INSTRUCTIONS FOR THE USE OF LASICO 1282 DIGITIZERS IN THE "PLANIMETER MODE"

Unpacking

Your instrument is supplied in a solid cardboard container and mounted on a particle board to ensure safe transportation. We recommend to keep it for future use.

Attachment of the Digitizer Base

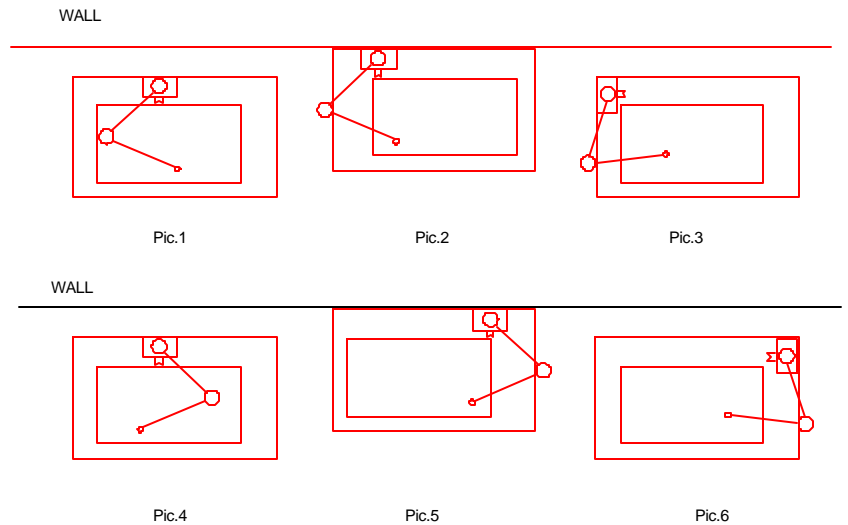
The base can be attached to the table surface either with screws "S" or with clamps "C". The holding bracket "H" keeps the digitizer arms in folded position if the instrument is attached to a tilted table.



1282W Models need only be attached to tables with a tilt angle exceeding 15 degrees.

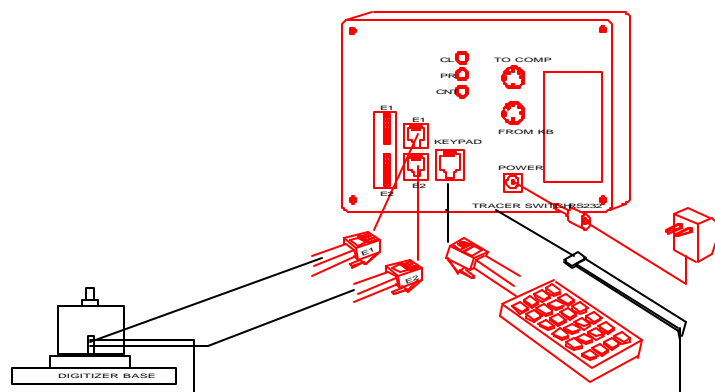
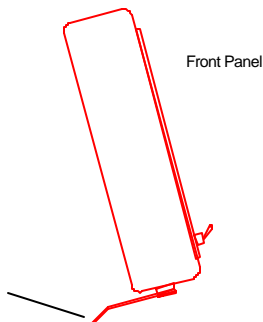
Instrument Setup

The instrument can meet almost any requirement as far as physical set up is concerned. It can be configured for either right (Pic.1-3) or left hand operation. (Pic.4-6) Lasico Digitizers may also be used on transparent light and projection tables. Pic.1 and 4 show the optimal position. In this setup it is necessary to have a 1-2 ft. / 30-60 cm clearance between wall and table. Pic.2 and 5 shows a setup directly against the wall. Here it is necessary to position the drawing to the right or left of the digitizer base. Pic.3 and 6 show the optimal position for work on tilted tables. The weight of the heavier arm is largely neutralized. For work on severely tilted tables, Lasico offers a weight balancing kit as an option.



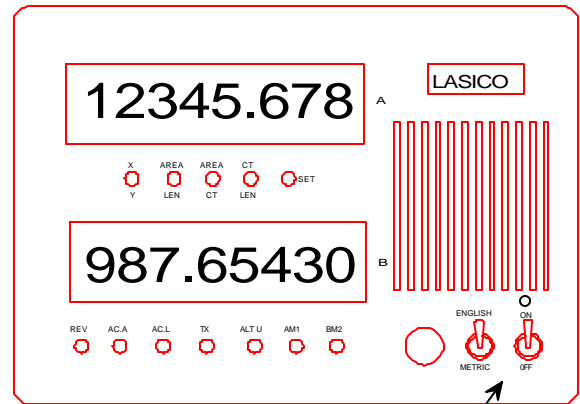
Electrical Connections

The edge connectors of both the tracer switch and serial cable must be plugged in in such a manner, that the wiring exits the connector towards the rear.



Preparations

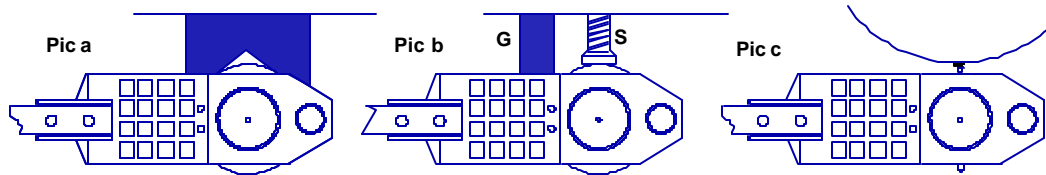
- Set up your instrument as shown on page 1. It should be clamped or screwed to a flat table surface.
- Check page 1 for details on electrical connections.
- Connect the DC connector of the power supply to the power jack on the rear panel and plug the power supply into an electric outlet.
- Insert the labeled transducer connectors into the E1 and E2 jacks.
- Plug the tracer switch-pad into the "tracer switch" edge connector on the bottom of the processor box.
- The keypad must be connected to the phone jack labeled "keypad".
- Make sure that your drawing, blueprint, etc. is securely attached to the table in such a manner, that it cannot move.
- Move the power switch to the upper "ON" position



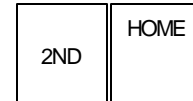
If your instrument is turned on the first time, it normally defaults into the Planimeter mode, i.e. the LED between AREA /LEN should be illuminated. If it is not, press the MODE R / MODE S button of your keypad until it is.

Initializing the Instrument.

Whenever the instrument is switched on, it must be "homed" first.



Move tracer assembly into "HOME" position and press: **2nd HOME**
(of keypad or tracer switch-pad)



If your instrument has a "Homing Template" (pic.a) move cursor into it, if it has a "Homing Screw", move cursor along the guide G and press slightly against screw S while activating the keys. (pic. b)
Models with circular base: move cursor against base until calibration screw touches it.(pic c)

Program your scale ratio into the processor. (use your keypad)

For a 1:1 English or Metric Scale press : **2ND XYSc 1 ENT**

For Engineering Scales press : **2ND XYSc key in scale ENT**

Example : To enter a scale ratio of 1"=40' press **2ND XYSc 40 ENT**

For an Architectural Scale of 3/32"=1' press: **2ND XYSc 3 J. 32 ENT**

Metric Proportional Scales are entered by pressing **2ND XYSc key in scale ENT**

Example: Scale is 1:8000 for results in m² press: **2ND XYSc 8000 ENT**

Note: If an English (Imperial) Ratio is expressed as a proportional scale, it must be converted into an engineering scale before it can be programmed into the processor.

Example: A scale of 1 : 240 means that 1" = 240 inches. For results in ft we must convert the 240 inches into feet (= 20 ') . Subsequently the scale must be programmed as : 1" = 20' **2ND XYSc 20 ENT**

The Measuring Operation

MEASURING IN THE STREAM MODE

If you want to measure an area or a length of irregular shape, you must "trace" around or along it using the "Stream Mode".

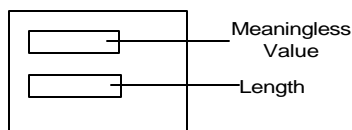
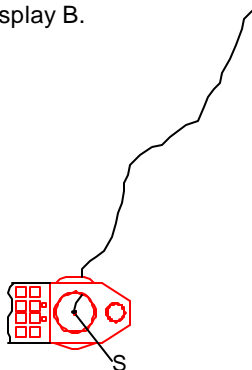
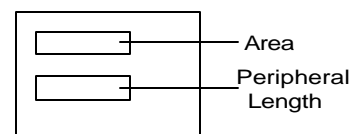
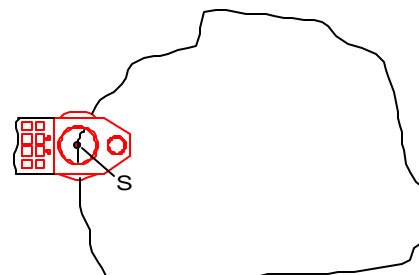
To change from point to stream mode and vice versa simply push the P/S button on the instrument cursor repeatedly.

When in the stream mode, the display numerals move whenever the position of the cursor changes and the P/S LED indicator on the tracer handle is not illuminated.

Whenever you measure an area, you will also get the peripheral length.

Area Measurement Procedure in the Stream Mode:

- Select a starting point (S) somewhere on the periphery and move the cursor over it.
- Clear the display using the "CL" button on the cursor.
- Carefully trace the cursor around the periphery with the cursor on top of the peripheral line (preferably in a clockwise direction) until you reach the starting point 'S' again. The area result will be shown on the upper display panel A, the peripheral length on display B.



Length Measuring Procedure in the Stream Mode :

- Again make sure you are in the stream mode (the display numerals are moving if the cursor is repositioned and the P/S LED is not turned on)
- Move your cursor over the starting point and clear the displays via the CL button.
- Move the cursor carefully along the line which is to be measured until the end of the line is reached.
- Find the Length Result on the lower display panel B.
- The numbers shown on display A are completely meaningless and should be ignored.

MEASUREMENTS OF 'STRAIGHT LINE' FIGURES IN THE POINT MODE.

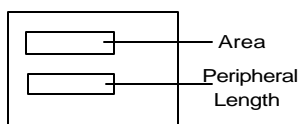
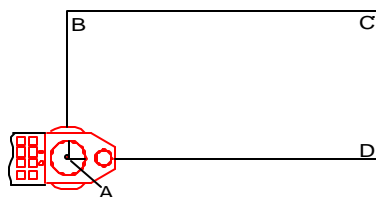
Whenever figures consist of straight lines, the "Point Mode" should be used. It is faster and more precise.

To activate the point mode press the **P/S** button of the tracer switch-pad. The P/S LED indicator on the cursor will turn on. Please note, that the display numerals do not move while the cursor is moved.

For Areas and peripheral lengths:

Move the cursor over the starting point A. Clear the display with the "CL" button. Move cursor to B corner, press **PNT**, then to C, press **PNT**, to D, press **PNT** and back to the starting point A. Press **PNT** once more.

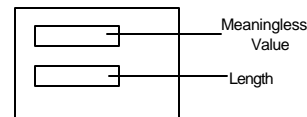
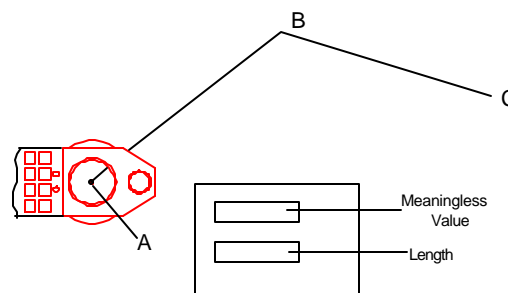
Find Area result on the upper display and the peripheral Length on the lower display.



For Lengths :

Move cursor to starting point A, clear your display via the **CL** button, then move the cursor to B, press **PNT** and subsequently to C and press **PNT** again.

Find your Length result on the lower display. The value shown on the upper display should be ignored.

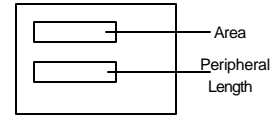
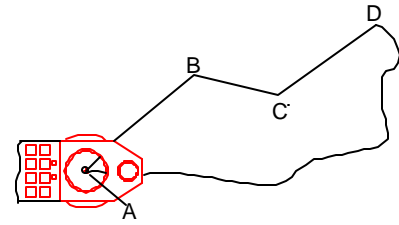


MEASUREMENTS USING A COMBINATION POINT / STREAM MODE.

If areas and or lengths consist of straight and curved sections, a combination of stream/point mode can be employed.

In our example we start with the straight line sections. Engage the point mode, move the cursor over A and clear the display. Now move the cursor to B and press *PNT*, then to C and press *PNT* and on to D and press *PNT*.

Now toggle into the stream mode by activating the *P/S* button once and continue by tracing the area section between D and A . After arriving at A you find your results

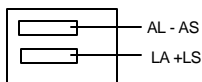
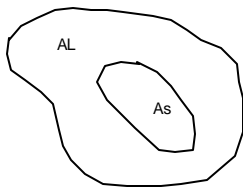
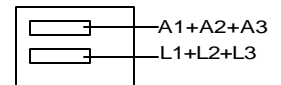
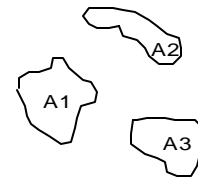


AREA / LENGTH ACCUMULATION

Different areas and (or) lengths may be added up or subtracted from each other via the "ACCU" feature.

Example: You need the total of Areas A1, A2 and A3 .

- Measure A1 as outlined earlier.
- Engage the "ACCU" feature by pressing the **ACC** cursor button. The LED located below this button as well as the AC.A and AC.L LED's on the front panel will turn on .
- Now move the instrument cursor to A2.
- Disengage the "ACCU" feature again by pressing the ACC button again. (the LED's go off)
- Measure A2 . Subsequently turn the "ACCU" feature on again .
- Move the cursor to A3 , toggle ACCU off and measure it.



To subtract a smaller area AS from a larger one (AL) proceed as outlined:

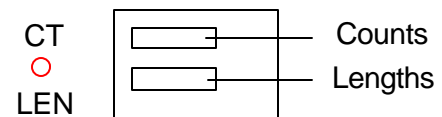
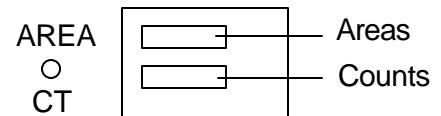
- Measure the large area AL first and then engage the ACCU feature by pressing ACC.
- Move your cursor to the small area AS and disengage the ACCU feature again (press ACC).
- Now measure the small area AS in the opposite direction. If you measured AL clockwise, measure AS counter clockwise or vice versa.
- On display A you will find the result of the large area AL minus the small areas AS (AL - AS).
- On display B you will find the sum of the AL periphery plus the AS periphery. (LL + LS)

Note: Lengths cannot be subtracted by measuring counter clockwise. You need to employ the

The Item Counter

is always active and may be used simultaneously while measuring areas and lengths. Item counts may be performed using the *ICNT* button of the instrument cursor or by using an optional counter pen (No. 70AA) connected to the rear panel jack labeled CNT.

- Before making any counts clear the count register by pressing the */CL* button of the tracer switch-pad .
- To see the result of an item count select mode AREA/CT or CT/LEN via the **MOD S** keypad button.



Built into the instrument cursor handle is a programmable remote switch to control all major functions which are normally accessed by tracer switch-pad buttons. To assign a function press **2ND SEL** and then the button to be assigned. Example: To assign the PNT button press: **2ND SEL PNT**. To assign the CL button press: **2ND SEL CL**