## System Wern Decimal Point Slide Rule/Disc Calculator Brief historic

Carl R. Wern started 1963 his HVAC Consulting Engineering Company "Wern Inter AB". Slide rules was created 1966 and sold by System Wern AB, System Wern Inc and IWA. The System Wern ABC slide rule gives direct read-out of the decimal point location, correct magnitude and problem set up. You can make settings and read numbers from 0.0001 up to 1 million. Answers are also found by means of exponential notation with a range of 20 decimal periods which is for power calculations extended to 40 decimal periods. Following calculations also employ direct read-out:

Powers, roots, trigonometrical values, logarithms with arbitrary base, percentage calculations involving margin and mark-up problems, and 31 popular European to American conversions. The ABC slide rule is so easy to learn compared with other slide rules. You can learn how to multiply and divide in less than 2 minutes, due to the fact that it simulates the conventional way of writing the problem.

Slide rule 8 1/4" x 8 1/4" made of high quality plastic and provided with sustainable case. All lines and numbers laminated against wear. (IWA 1633, IWA1638).

Comprehensive instruction manual for IWA1638 with 61 illustrated exemples of solved problems, conversion factors etc.

## Decimal point slide rule/disc calculator - System Wern

Carl R. Wem created the design layout together with his two younger brothers George & Lars. The slide rule drawings was made by Carl 3 times larger than the final product.

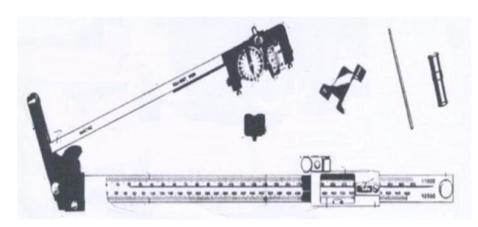
George divided the periphery of a circle with a diameter of 84 cm into 4 000 equal intervals as a base to plot in angles with an accuracy of 40 000 equal intervals. Lars made a program in Algol on Facit computer EDB-3 for calculating the angles for each scale. A special degree counter instrument and handmade ink adapter and a magnifying glas were then used to set the correct angle with very high precision 0.06 mm accuracy. In production, it is four times better, 0.015 mm! One inch = 25.4 mm. All calculators had to be checked against 3 dots that should be within a circle when controls were made by rotating the slide top disc at 3 locations. A Swedish design and a German manufacturer. The slide rules IWA 1633 & 1638 were first sold in Sweden and Germany and later also in USA and some other countries. Carl's older brother Roy Wern, a design concept engineer who has been given a place on the Apollo/Saturn V Roll of Honor, sold a number to his colleagues at The Boeing Company. The slide rule sales came to an end when electronic calculators entered the market. At that time, it had been noted that the accuracy of the System Wem design scales made them attractive to be copied by some manufacturers.

## Gold medal was awarded 1966 to Carl, George and Lars Wern.

Wern Inter AB, Mechanical (HVAC) Consulting Engineering, 1963-2000/World Wide. Carl R. Wern/CEO. Reg. Prof. Mech. Eng. (1960 in Mich., USA).

George H. Wern, Mechanical Design Engineer (HVAC) Lars A. Wern, European Patent Attorney.

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**Degree Counter Instrument** 

1966. Lars, Carl & George Wern