

# ONE-ARM PROTRACTOR

## INSTRUCTIONS

**Note:** This product was discontinued as a separate offering in 2005, but may still be purchased as part of the Davis Charting Kit #083.

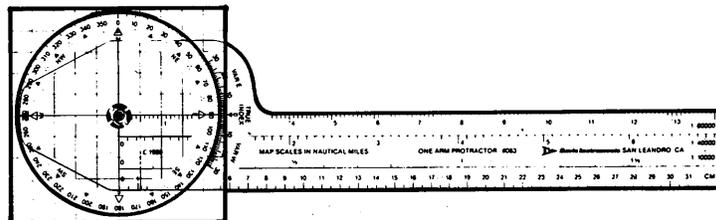
The Davis **One-Arm Protractor** is the most versatile plotting tool available. Can be laid on any line of meridian to draw course lines; turns any meridian into a compass rose. This is especially handy on charts where the compass roses are few and far between. The base allows true course and reciprocal course to be read at the same time. Includes east-west variation scale, reads in degrees and compass points—32 point to the scale. Made of durable, flexible and nearly unbreakable clear plastic for use on uneven surfaces. Overall length 15 1/8" (38 cm). Base measures 4 5/8" (12 cm) square.

### TO MEASURE COURSE ANGLE:

- 1) Place the one-arm protractor on the chart so that the compass rose points true north. The grid on the base plate should be parallel to a meridian of longitude or a parallel of latitude.
- 2) Keeping the compass rose pointing north and the grid parallel, rotate the arm and slide the protractor along the chart until the "true index" edge of the arm is along the course line.
- 3) Depending upon the direction traveled, read the true bearing at the true index point or at the arrow 180° opposite to the true index point.
- 4) To read magnetic bearing, find the variation given for your area in the center of the compass rose on your chart. Count the number of degrees of variation to the right or left of the true index point on the protractor. The line on the inner compass scale that matches the degrees of variation on the outer variation scale is your magnetic bearing.

### TO DRAW A COURSE OR BEARING FROM A POINT:

- 1) Place the protractor on the chart so that the compass rose points true north and the center of the



Highest quality printing: features sharp printing process, high gloss finish on front and back, and over-lamination for durability.

base plate is over the given point. The grid on the base plate should be parallel to a meridian of longitude or a parallel of latitude.

- 2) If the point is some distance from a meridian or a parallel, check the alignment of the grid by rotating the arm of the protractor until the "true index" edge passes through the center of the nearest compass rose. Read the true angle on the rose at the "true index" edge of the arm. Holding the arm firmly in place, rotate the base plate until the reading at the true index point is the same as that of the compass rose on the chart. The grid should now be parallel.
- 3) Holding base plate firmly in place, rotate the arm until the desired bearing is read at the true index point or at the arrow 180° opposite to the true index point (for true bearing) or at the variation scale (for magnetic bearing).
- 4) Draw line along "true index" edge of arm. Slide base plate as needed to extend line to the given point.

### OTHER USES OF ONE-ARM PROTRACTOR:

- 1) Measure distance using chart scales on arm. Be sure to use the scale (1:80000, 1:40000 or 1:10000) indicated on your chart.
- 2) Handy centimeter scale on long edge of arm.

## **Davis Instruments**

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