

20A/ENGLISH



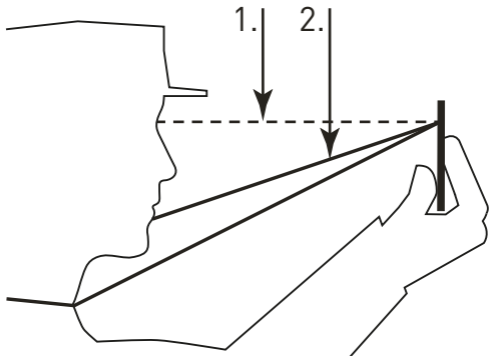
Wndsn XPD Telemeter Pendant

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HOW TO SET IT UP

To install, loop the string through the provided hole at the top.

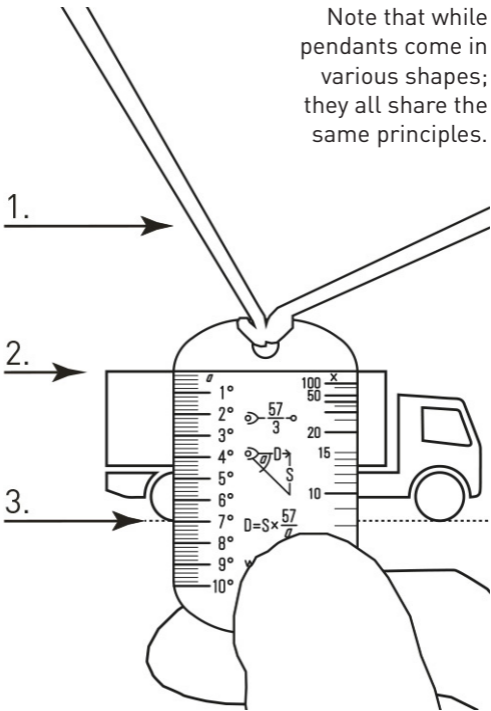
1. Measure a length of exactly 19.1 cm (7.5 in) from eye to scale.
2. The cord around your neck fixates that length.



OPERATION

1. Keep the string taut, for a distance of **19.1 cm from eye to scale**.
2. **Align the instrument's baseline** to the top of the object to be measured.
3. **On the α scale**, read the angular size at the lower bound of the object.

Note that while pendants come in various shapes; they all share the same principles.



OPERATION

4. To calculate the distance to the object: divide 57.3 by the measured angular size.
4. Alternatively, read the multiplier from the right-hand scale.
5. Multiply the result with the known height of the object.

Example: The object measured is 7° tall; the known height of the object is 4 m; we calculate a distance of 33 m. $(57.3/7*4)$

Example 2: Known height = 4 m; the corresponding multiplier is 8.25; distance 33 m. $(4*8.25)$

HOW TO USE THE SCALES

DEGREE SCALE

If the dimension of an object is unknown, the angular size (relative to the vantage point) can be used for calculations.

MULTIPLIER SCALE

If the dimension is known, the marks on the right-hand scale give direct values to multiply with.

Note that you can measure in any unit (cm, in, ft) or system (metric, imperial, custom), the factors are always the same and return your distance in the same unit you used to approximate the object size.

MULTIPLIERS

Degrees can be easily converted to multiplication values; divide 57,3 by the respective degree value.

| | |
|------------|---------------------|
| 1° | = x 57 |
| 2° | = x 57/ 2 = x 28.5 |
| 3° | = x 57/ 3 = x 19 |
| 4° | = x 57/ 4 = x 14.25 |
| 5° | = x 57/ 5 = x 11.4 |
| 6° | = x 57/ 6 = x 9.5 |
| 7° | = x 57/ 7 = x 8.1 |
| 8° | = x 57/ 8 = x 7.1 |
| 9° | = x 57/ 9 = x 6.3 |
| 10° | = x 57/10 = x 5.7 |
| 11° | = x 57/11 = x 5.2 |
| 12° | = x 57/12 = x 4.75 |
| 13° | = x 57/13 = x 4.4 |

ACCURACY

Accuracy is determined by two elements, provided that the string length is respected; the **reading of the scale and approximation of the corresponding mark**, and the **estimation of the height of the measured object**. For training and reference purposes, you may want to create a **table with the exact heights** of common objects.

PRECISION

With each degree divided in 5 parts, the instrument has a precision of 0.2° or 12 arcminutes.

For **high-precision calculations**, use: tycho.wndsn.com