User Manual for Digital Protractor

Thank you for your purchasing this new digital protractor. Digital protractor must be calibrated before use to ensure accurate readings. See below relative part for calibrating instruction.

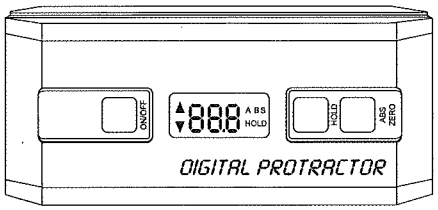
Feature Overview

The digital protractor is a revolutionary measuring tool that provides an immediate digital reading of all angles in a 360° circle. The machined aluminum frame is rigid, light weight, precise platform that allows the sensor and its microprocessor circuit to provide high accuracy throughout the protractor's 360° range.

The digital protractor works normally in a standard reference mode where protractor is displayed as 0.0°. However, alternate reference mode for 0.0° can easily be set by pushing the ABS/ZERO button. You can also "freeze" any displayed angle on the LCD by pushing the HOLD button.

The 360° range of the unit is organized into four 90° quadrants for display purposes. In each, the unit achieves an accuracy of +/-0.1° at level and plumb with a maximum error of +/-0.1°.

The digital protractor does not need to be returned to the manufacturer or dealer for recalibration. By following instruction in this manual, you can test and recalibrate this unit in just a couple of minutes on site and without any special fixtures.



Specification:
Range: 360°
Reselution: 0.1°
Accuracy: +/-0.1°
Temperature: -5°C~50°C
Power: 3V, Lithium Cell
Battery Life: 500 hours

Operating Instruction

Battery

The digital protractor is powered by a 3V Lithium Cell, model is CR2032. A new lithium cell battery normal capacity is 210mAh and will provide 500 hours of use.

If the battery is low, the unit will indicate by the sign of battery. Change the battery when the sign exsits.

Angle Measuring

To operate your protractor, simply push the ON/OFF button; it will begin displaying angle readings immediately. Set the unit on the surface to be measured and read the angle.

When the unit is first turned on, "-1-" will appear on the display, which means the unit need to calibrate, after that, the unit can measure angle normally.

An arrow on the left side of the LCD will indicate which way to move the unit to achieve level or plumb.

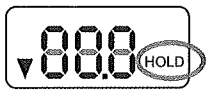
If you continue to rotate the unit, the numbers on the unit display "flip over" when the unit is upside-down, allowing for easy reading in any position.

Key Function:

HOLD

If you need to measure angle in an unreadable position or you want to lock the reading while recording it, simply press the HOLD button while measuring the angle(Make sure the unit has been in position and still for 6 seconds). The readout will freeze and icon "HOLD" will appear and blink in the right side of the LCD, you can record the reading while icon "HOLD" stop blinking.

While "HOLD" feature is engaged, the ABS/ZERO cannot work. Also, simply press ON/OFF to turn it off, the reading remains when you turn it on again.

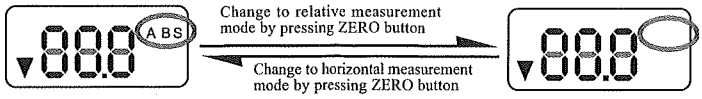


To release, press the "HOLD" button again.

ABS/ZERO

ABS/ZERO allows two measuring modes: Standard Reference Mode and Alternate Reference Mode.

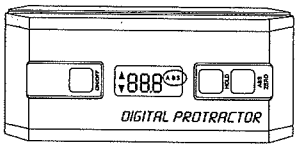
Standard Reference Mode:
If the ixon "ABS" is in display it is in horizontal measurement mode



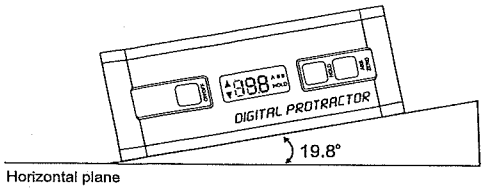
Alternate Reference Mode:
If the ixon "ABS" is not in display it is in relative measurement mode

Standard Reference Mode

ABS/ZERO allows you to measure angle in standard reference mode-level(true horizontal). Below sample for measuring actual angle works in this mode.



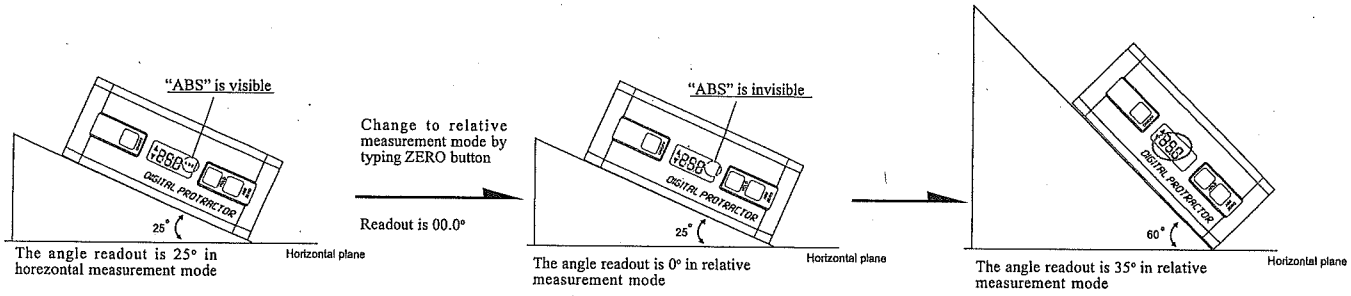
1. "ABS" icon is visible when the "ABS" icon is visivle and the readout is 0 degree when the unit is located in horizontal.



2. Put unit on the surface needed to be measured.
The protrcator show the angle of surface off the horizontal (to get the most accurate reading, allow the unit to settle for 6 seconds before noting the angle.).

Alternate Reference Mode

ABS/ZERO allows you to set any angle as a 0.0° reference point from which to take measurements. For example, you may want a surface that is actually 25° off horizontal displayed as 0.0°, then you can measure all other angles from that benchmark., from below example, the unit display 35.0° for actual 60.0°.



1. The unit is in horizontal measurement mode (the icon "ABS" is visible). Put the protractor on the surface that is acutally 25° off the horizontal.

2. Press the ZERO button to change to relative measurement mode (the icon "ABS" is invisible, the angle readout is 00.0°)

3. Put the protractor on the surface that is acrually 60 off the horizontal. "35°" showed on the display is relative to the benchmark of the surface that is acutually 25° off the horizontal.

ON/OFF

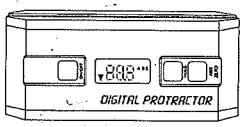
Simply press this button to turn unit on, it will display the angle reading immediately. Set the unit on the surface to be measured and read the angle (To get the most accurate reading, allow the unit to settle for 6 seconds before noting the angle).

When you press the ON/OFF button more than 6 seconds, the unit will be turned off, and you need recalibrate it when you turn it on again. Please check Calibrating Instruction.

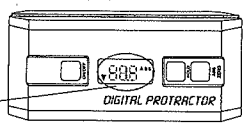
Recalibration

Normally the digital protractor doesn't need to recalibrate if you do not take the cell out frome the unit, or you do not turn it off by pressing ON/OFF button more than 6 seconds. If not, you need calibrate it.

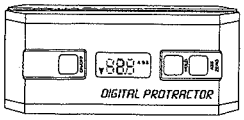
1. Place the unit on a flat surface Unit faces you and lettering on face is right-side up. Align with an edge or line. Press ON/OFF button,The "-1-" Appears.



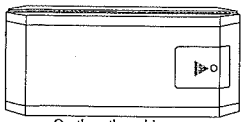
2. Type ZERO button and the "-1-" is blinking.



The icon "-1-" is blinking



3. Wait 6 seconds until the "-2-" appears.



On the other side,
The icon "-2-" is blinking

4. Rotate the unit 180 degree horizontally so it faces away from you, the lettering should be still be right-side up. Align with the same edge or line. Type ZERO button and the "-2-" is blinking wait 6 seconds until the actual angle is visible. The calibration is finished.