

## Electronic Builder's Level Operation Manual

- + Measures angles in degrees
- + Measures angles in percentages
- + Rise over run (%= mm/ 1m)
- + Acoustic signal at level and plumb
- + Slope display
- + Memory/ Hold
- + Checking accuracy
- + Calibration procedure
- + Maintenance
- + Application hints

### How to measure

Put the **DIGITAL LEVEL** on the object to be measured, press ON/OFF button. Immediate display of the angle.

### Functions



#### 1 ON/ OFF

Push to turn on or off. To conserve power, the **DIGITAL LEVEL** will automatically shut itself off if left idle for 6 minutes.

#### 2 HOLD

Press to freeze / unfreeze the display reading (helps when the display is in a difficult-to-see position).

#### 3 Directional Listen & Level Audio

Push to activate and de-activate the beeper. Directional Beep rate increases as 0°, 90°, or the copied angle is approached and changes tone when the angle is passed.

#### 4 Calibrate

See 'Calibration procedure'

#### 5 ° % mm/M

Push to change the display units.  
Degrees (°) Slope (%) Pitch (mm/M)  
Pitch readings are in 1mm increments.

**Note:** This button can be used even when the display is in HOLD. This feature is a convenient way to convert angles from one unit to another. For example a 417 mm/M roof pitch measurement can be converted to 22.6° for setting up cuts on a chop saw.

#### 6 UP/ DOWN arrows

Left & right indicators point toward level or plumb. The indicators get shorter as the **DIGITAL LEVEL** gets closer to level (0°) or plumb (90°) or copied angle.

#### 7 Low Battery

Low 9V battery indicator. See „Maintenance“.

#### 8 Digital Display

Display readout of current measurement

#### 9 Listen & Level audio

Beeper „on“ indicator. Beeper will sound at level (0°) and at plumb (90°).

#### 10 ° % mm/M

Indicates measurement „mode“

#### 11 Alternate zero

Alt zero allows you to set any angle as a 0° reference point from which to take measurements. Set the new 0° by pressing **Hold/Copy** then **Cal/Alt 0**. The display shows "Alt" then "-0-" then the new 0°. A dot flashes above the decimal point while in "Alt 0" mode. Discontinue "Alt 0" mode by pressing **Hold/Copy** or **Cal/Alt 0**. Beep, °, % and mm/M continue function as normal.

### Angle copy

To copy angles, place unit on angle to be copied. Press the **Hold/Copy** button. Push the **Audio** button.

Level will begin beeping. The "copied" angle will remain frozen on the display. A beep will sound when the unit is returned to this exact angle. To remove the unit from the angle copy mode, push the **Hold/Copy** button or the **Audio** button. This operation will return the unit to the regular mode.

### Checking accuracy

Standard bubble levels change the accuracy in a short time due to the handling. You can check the accuracy of the **DIGITAL LEVEL** at any time.

Check the **DIGITAL LEVEL** every day, after heavy shocks, after a long time sitting in the warehouse or when the outside temperature has changed heavily. Place the **DIGITAL LEVEL** on a flat horizontal surface (need not to be exactly level) with the display toward you and the angle reading in degree (°).

Wait 10 seconds. Note the display reading. Rotate the unit end-for-end so that the display faces away from you. Wait 10 seconds. Note the new display reading. The two readings should match within 0,1°. If not, follow calibration procedure.

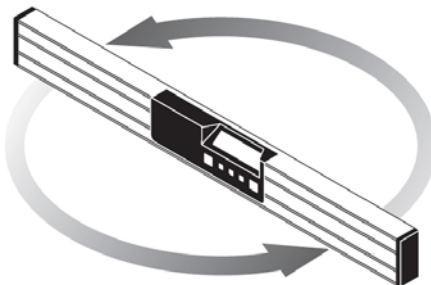
### Calibration procedure

To read accurately, the **DIGITAL LEVEL** must be calibrated through all eight calibration steps. If the **Cal/Alt 0** button is pushed when reading is not near level or plumb, the display will show " --- " and the calibration attempt will be ignored. If "CAL ALL" appears on the display, the **DIGITAL LEVEL** needs to be calibrated through all eight calibration steps. The calibration procedure is similar to the accuracy check. However, this time the **Cal/Alt 0** button should be pushed at each of the two end-for-end positions to allow the **DIGITAL LEVEL** to store those angle readings.

**Step 1:** Place the **DIGITAL LEVEL** on a flat surface with the display facing you. Turn it on and wait 10 seconds. Push and hold the **Cal/Alt 0** button for 2 seconds until "CAL1" appears on the display.

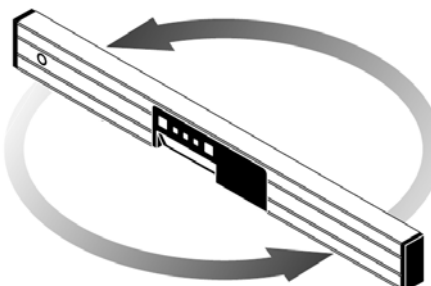


**Step 2:** Rotate the **DIGITAL LEVEL** end-for-end on the flat surface with the display now facing away from you. Wait 10 seconds. Push and hold the **Cal/Alt 0** button for 2 seconds until "CAL2" appears on the display.



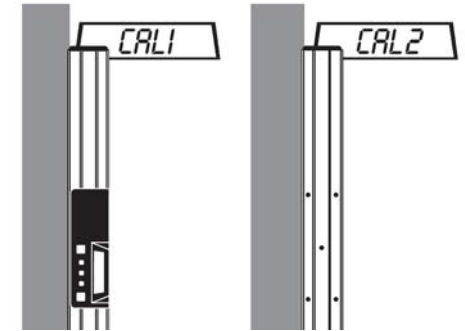
**Step 3:** Place the **DIGITAL LEVEL** upside down facing you. Wait 10 seconds. Push and hold the **Cal/Alt 0** button for 2 seconds until "CAL1" appears on the display.

**Step 4:** Rotate the **DIGITAL LEVEL**, still upside down, end-for-end on the flat surface with the display now facing away from you. Wait 10 seconds. Push and hold the **Cal/Alt 0** button for 2 seconds until "CAL2" appears on the display.



**Step 5:** Place the bottom side of the **DIGITAL LEVEL** against a flat vertical surface with the display facing you (see picture). Wait 10 seconds. Push the **Cal/Alt 0** button for 2 seconds until "CAL1" appears on the display.

**Step 6:** Turn the **DIGITAL LEVEL** with the display facing away from you, along its vertical axis. Wait 10 seconds. Push the **Cal/Alt 0** button for 2 seconds until "CAL2" appears on the display.



**Step 7:** Place the top side of the **DIGITAL LEVEL** against the flat vertical surface with the display facing you. Wait 10 seconds. Push the **Cal/Alt 0** button for 2 seconds until "CAL1" appears on the display.

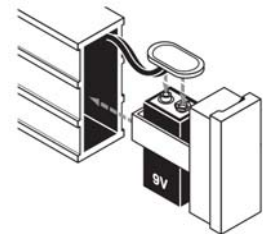
**Step 8:** Turn the **DIGITAL LEVEL** along its vertical axis (display now facing away from you). Wait 10 seconds. Push the **Cal/Alt 0** button for 2 seconds until "CAL2" appears on the display.

### Maintenance

When and how to change batteries? If the battery in the **DIGITAL LEVEL** is getting low, a battery indicator will come on.

The **DIGITAL LEVEL** will continue to operate normally, however, the battery should be replaced within a day or so. When the battery has reached a critically low voltage the **DIGITAL LEVEL** will shut itself off until a new battery has been installed.

The battery is inside the endcap. To install the battery, remove the endcap using a coin or blade in the slot provided. Unsnap the dead battery and snap in a new one. Be careful not to pull on battery wires. Use only 9-volt alkaline batteries.



### Application tips

Should your **DIGITAL LEVEL** be splashed with mortar or other construction site residue, simply wipe clean with a damp cloth. **Do not immerse the DIGITAL LEVEL in water!** We advise you to store the **DIGITAL LEVEL** away from extreme temperatures below -4°C or higher than 60°C.

There are many ways in which angles can be measured and the results displayed.

**Degrees** is mostly used in wood and metal construction. The **DIGITAL LEVEL** measures all angles of the circle (4 x 90°).

**Percentage** is measured as follows:

0° = 0%    45° = 100%

45° = 100%    90° = 0%

Slope (%) is mostly used in civil engineering.