



# DL600 Digital Level

## Instruction Manual

The DL600 is a Digital Level and inclinometer for measuring levels and angles. It has a large clear LCD panel which can display measurements in a variety of units including degrees and percentage. The sound feature allows audible indication as the unit gets closer to being level ( $0^\circ$ ), Hold and Reference features add extra functionality. The DL600 also features durable spirit vials for vertical and horizontal levelling and alignment and a handy grab handle.



Vertical Spirit Vial

Display Rotation Dial

Digital Level LCD Display

Grab Handle



Insert Batteries as indicated.



Self Calibration & Reference

Units of Measure

Sound & Light On/Off

Hold

Power On/Off

Low Battery Warning

Sound On



Direction Arrows

Unit of Measure  
(degrees, Percentage, Inch/Ft, mm/m)

### Operation

Power up the DL600 with the On/Off button, the LCD display will show the angle of a surface when placed on it,  $0.0^\circ$  and all four arrows will indicate level. When not level the arrows will indicate which direction the unit needs moving to reach level.

The "Hold" button allows you to freeze the LCD display when pressed. This is useful when holding the level on a surface in such a position that you cannot see the display, simply press the hold button the measurement will be frozen until you press the hold button again.

[www.redbacklasers.com.au](http://www.redbacklasers.com.au)

A short press of the "Sound/Light" button turns on or off the sound feature of the DL600. When turned on the DL600 will emit a number of beeps the beeps will get faster and faster as the level gets progressively closer to being either level (0.0°) or to Vertical (90.0°), once exactly on these points a solid tone beep is sounded. A long press of the same button (2 seconds) will turn on and off the LCD panel back light.

The "Mode" button changes the units of measure displayed by the DL600, the default unit is degrees and each press of the button will toggle the DL600 through each unit of measure available. After degrees is percentage of slope, then Inches/Feet (+ or -), Inches/Feet Decimal and finally mm/m one more press brings it back to degrees once more.

The "Cal/Ref" button does two features, a short press will zero off the level at what ever angle it is currently at. So for example if you have a stair balustrade you want to replicate on the other side of the stairs, rather than remembering the angle simply place the DL600 on the first surface wait for it to settle then press hold. The use the level on the other side of the stairs when the level indicates 0.0 then this is exactly the same angle /slope as the original surface when the "Ref" button was pressed. To clear this reference point simply turn off the level when it is turned on again normal levelling will resume. A long press of this button will get the unit into self calibration mode, see instructions further down this page.

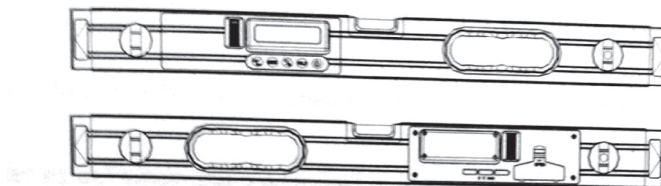
Low Battery is indicated by a flashing battery symbol appearing on the LCD display.

The DL600 will auto power off if no movement has been detected within 6 minutes to save batteries.

## Calibration Instructions

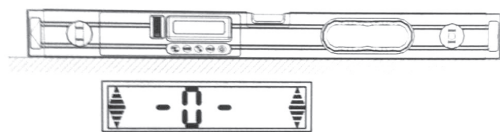
Calibration may be required after sustained vibrations, large temperature variations or any knocks or drops. To check the calibration simply place the level on any handy flat surface and read off the angle/slope displayed then rotate the DL600 180° so that the reverse side of it is facing you, again note the angle/slope the difference between the two should be no more than 0.2° which is tolerance. If the variation falls beyond this then the DL600 will need calibrating using the following method.

### Rotate DL600 180°

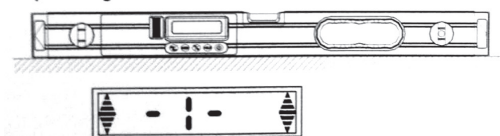


#### To calibrate.

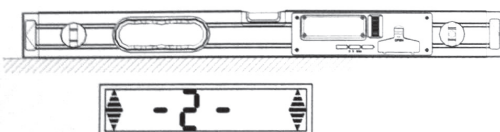
1. Place the DL600 on smooth horizontal surface and press "CAL" button "-0-" will be displayed.



2. Wait 10 seconds and press "CAL" button again (long press 2 seconds) and "-1-" will be displayed.



3. Next turn the level 180° on the same levelling surface and wait another 10 seconds press "CAL" again "-2-" will display for a moment and the display will then return to showing the angle in degrees. Re-check and if necessary repeat calibration procedure.



#### Specifications

Angle Range 4x90°  
Accuracy Digital:  $\pm 0.1^\circ$  (0°-10°)  
 $\pm 0.2^\circ$  (other)  
Accuracy Vial: 30' / 2mm  
Power: 3x "AAA" Batteries  
Temperature: -10°C - +45°C  
Size: 610mm x 60mm x 28mm