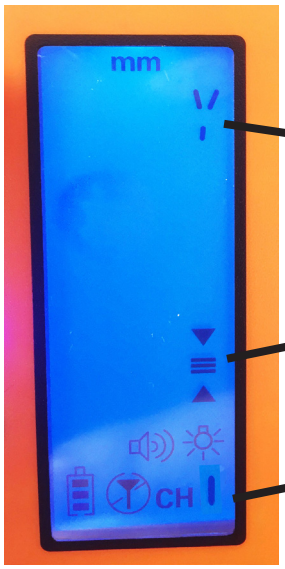
DGL1010GM
Additional Instructions

The DGL1010GM has all the features of the DGL1010VS but in addition has Grade Match utilising a mm receiver with RF two way communication to the DGL1010GM laser level. This addition instruction sheet covers the Grade Match operation, all other operations of the DGL1010GM are covered in the DGL1010VS instruction book.

RF Two Way MM Display Receiver with Grade Match

In this instruction sheet we will only cover the grade match features of this receiver all the other features are identical to the LR720 mm Receiver which is covered in the DGL1010VS Instruction booklet page 14.



Axis Indicator for Grade Match feature
(note: each press of the X/Y button toggles between X and Y the current Axis will flash up on the screen momentarily)

Receiver Accuracy indicator
(note: changes to 5mm when in grade match mode)

Receiver RF Channel Indicator
(note: must be channel 1 on receiver and the laser itself set to channel 2 for grade match to work)

Grade Match Operation

Grade match means that the laser will tilt/slope on the selected axis until it reaches the level spot on the receiver, note that the receiver needs to be no more than 10% grade either positive or negative for a grade to be matched.

To prepare for performing a grade match first you must align either "X" or "Y" axis in the direction you want to grade, using the scope and fine adjustment plate can aid in this. Next turn on the DGL1010GM and let it self level. **For the grade match facility to work the mm receiver must be set to CH1 (default value) and laser level need to be on CH2**. Note the smart remote cannot be operated at the same time as grade match mode as only either the receiver or remote can connect to the laser at one time (see page 12 of DGL1010VS instruction book).

Now take the receiver mounting it either on a staff or other steady object to the location that you want to grade match and along the axis you have determined, e.g. "X" axis. Set the receiver at your required height facing its front towards the laser level. Power up the receiver, then press the "CH" button on the receiver (2 seconds) the channel indicator will display on the LCD displays on the receiver. If not set to CH1 keep pressing the "CH" button until it is. The laser needs to be set to CH2

Then the blue LED on the receiver will start flashing and beeping indicating its on the correct channel and communicating.

Make sure that the receiver is set to the same axis that you have aligned to for example "X". Press the X/Y Button on the receiver to toggle between the "X" and "Y" axis, the axis is flashed up on the LCD panel.

The DGL1010GM will now slope the laser on the "X" axis first in one direction (+ve) then the other (-ve) until it finds the receiver. Once the laser is striking the receiver, both the receiver and DGL1010GM will display the number of mm away from level and on the laser on the line below will indicate the percentage grade this is. Once the laser has locked onto level the blue LED will turn off indicating that grade has been successfully matched and the laser is now locked into this grade.

You can now use the receiver to find this graded plain anywhere along or parallel to this axis whether it be in front or behind of the laser level unit. To cancel this grade simply turn off and on the DGL1010GM.

Using Grade Match Feature when the DGL1010GM is in Vertical mode.

The DGL1010GM can utilise the Grade Match feature when it is in vertical rotation mode (laser mounted on its side) making it great for Fence alignment and also usable for site squaring.

The principles for working in vertical rotation mode are the same for grade, the difference now is that the receiver is used on its side and the laser shifts the rotating plain left to right to find the receiver, not up and down. Note that the receiver must be set to the "X" axis as in vertical mode this is the only axis available to match. Also note that as this is not a grade no grade % is displayed on the DGL1010GM LCD display.

This now gives an alignment line between the laser level and to where the receiver was placed. Now by using the receiver on its side anytime it indicates level means that the level position on the receiver is perfectly on this line making it ideal for fencing.

The DGL1010GM also features a visible dot, when on its side this is at 90 degrees to the vertical rotation, this can be used for site squaring, note that the dot in full sun may not be visible over more than a handful of meters.

The RF mm Receiver has a maximum range of approximately 100m for communicating with the DGL1010GM this may vary depending on the environment and battery quality and charge, for laser reception the receiver will work beyond 300m radius.