

EL614GM/EGL624GM Additional Instructions

The EL614GM and EGL624GM models include all the features of the base models but also have the ability to auto grade match using the LR720T millimetre tracking receiver. The GM models can be distinguished from the base models by the work tracking printed on the control panel as well as the EL614GM or EGL624GM model printed on the casing. Both these models come with the LR720T millimetre tracking receiver and updated remote control. All controls for using the grade match feature are on the receiver itself, the laser's control panel and remote operates exactly as in the main instruction manual.

LR720T receiver



LR720T General Receiver Operation

The LR720T general operation is the same as the LR720 millimetre receiver.



To power up the receiver press the red power button the display will flash a solid tone will sound. The receiver will now pick up any rotating laser beam striking the long reception window on the front of the receiver.

When displaying the height of the laser compared to the level point in mm the LR720T will display up to +/- 45mm from level, between 45mm and 65mm above or below the LCD display will indicate "OUT" and the appropriate LED lights will flash. When a measurement is displayed it indicates the distance between level and where the laser is actually striking the receiver, the arrows and LED lights indicate which side of level the laser is.

To select sound volume press the Sound Options button (short press) which will cycle through; off, low, high (default) sound levels.

To select Accuracy press the Accuracy Options button which will cycle through level bands of; 5mm, 9mm and 1mm (default). The default single line between the two arrows on the display indicates fine mode 1mm, 3 lines 5mm and 5 lines is 9mm, the mm value flashes up on the LCD display momentarily.

Units of measure can be selected with the "UNITS" button, millimetres is default, you could also select cm, inch and feet.

The LCD backlight function is activated by the same button as Sound Options to activate press and hold button for two seconds and back light will turn on, to turn off press and hold same button for two seconds.

Low Battery is indicated by a battery symbol appearing on the bottom left of the LCD display.

The "OSET" button is used to set a customised level point other than the default level point as indicated by markings on the casing. A custom level point can be set between 20mm above and 20mm below the default level point. A custom level point is set to where the laser is currently striking (assuming it is within the +/-20mm band) by pressing the "OSET" button the receiver (while laser is striking it) will now show as being level at that height the LCD display will flash "Oset" to indicate a custom level point has been set. To clear this custom level and return to the default setting either press the "OSET" button once more or power off the receiver.

Auto power off function will activate after 10 minutes of the receiver not picking up a laser, this is to save battery.

The LR720T has bubble vials built into its casing, this is to aid in accuracy, when the top bubble is central in the vial then the receiver housing is level side to side. The bubble vial on the long edge is used when using the receiver to pick up a rotating laser on the vertical plane for alignment.

The LR720T also features two magnets, useful for indoor installation work when using steel structures. They are not designed for attaching to a moving machine arm as heavy vibrations could make the receiver to fall.

LR720T Using Grade Match Feature

Place the EL/EGL Grade Match laser at the position and height you require, making sure one of the lasers axis (X or Y) is facing towards where you are going to match the grade, then power up as per normal. Place the receiver at the position, in line with one of the lasers axis. Then set the height of the receiver to where you want to match the grade to. Power up the receiver as normal, then long press (hold 2 seconds) the Transmitter button until the blue LED lights up. The laser level itself will also emit a beeping sound to indicate it is matching grade. Next set the axis you require to grade match, X or Y. Select axis by pressing the X/Y button on the receiver, each press toggles between X or Y.

The laser will now search for the receiver, this may take a few minutes. The receiver will start to indicate reception of the laser once it is located within the receivers reception window. Again wait some minutes for the laser to find the level height. Once at level the laser will lock onto this grade and the laser will make a solid beep and then the sound will turn off. The receiver Grade Match blue LED will also turn off. You can turn off or move the receiver to any position and when the receiver now indicates level it is indicating the height at the constant grade that has been set.

In Grade Match mode the receiver defaults to 5mm accuracy level band it can be altered by pressing the accuracy button, note the finer the accuracy the longer it take to match. Toggle between +/- 1mm, 5mm and 9mm bands.

The LR720T has a number of channels it transmits on, the default channel is "2". If the channel get changed on the receiver it will no longer communicate with the laser. Short pressing the CH button will toggle through the channels, keep making short presses until the receiver display returns to the "CH2" position for it to work with the laser level.

If the laser during the Grade Match feature emits a constant tone, then the receiver height has been set beyond the grade range of up to 10% or there is an obstruction shadowing the receiver from the laser.

LR720T Using Auto Vertical Alignment Feature EGL624GM ONLY

The EGL624GM can be operated on its side with vertical rotation, using the LR720T tracking receiver the laser can be made to auto track to find the receiver handy for aligning fence lines or producing 90 degree site layout etc.

First place the EGL624GM on its side either directly on the ground or on a tripod at the start point of your alignment. Direct the vertical rotation in the general direction where you want the alignment to finish. Power up the laser. Place the LR720T receiver on its side with the level indicator at the point you want the alignment to be made.

Power up Receiver, Long Press (2 seconds) the CH/Grade Mode Button so blue LED lights. No need to set an axis this time. The laser will now track left or right to find the receiver's level position and lock on, much the same as it does in grade mode. Again the laser will continually beep until it has locked on. When locked on the receiver will give a constant tone and the blue LED will go out. The laser will do one long beep and go silent. The Receiver can be no picked up and moved along this vertical line to find perfect alignment.

If the laser itself makes a constant tone then the receiver has been set outside of the vertical alignment range of the laser, the laser will need to be repositioned to be more accurately aiming at the receiver.