



Figure1.



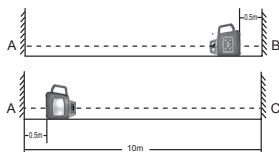
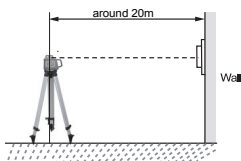
Figure2.



Figure3 .



Figure4 .



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LIMIT 1210 HV

Rotating laser with visible light for use both outdoors and indoors. Motorized automatic self-leveling both horizontally and vertically. The laser has following features.

Scan Mode

Dot mode.

Manual mode. and Manual-Slope mode

Tilt mode.

Calibration function.

Contents: Laser, Remote control, Laser Receiver with clamp, Wall mount bracket, Rechargeable battery pack with charger and manual.

Technical Specification:


Operation distance (Radius) m		200
Accuracy	Horizontal	± 1 mm/10m
	Vertically	± 1.5 mm/10m
Self-leveling range		± 5 °
Rotation Speed Sequence:	rpm	300-600-0 (in horizontal direction)
		0-300-600 (in vertical direction)
Remote distance max	m	30
Dust/Waterproof		IP 54
Operation time	hours	24
Operating temperature	° C	-10 ... +40
Storage temperature	° C	-20 ... +60
Weight	kg	2.0

Laser diodes Class 2 1mw 635nm.



Security. Do not look directly into the laser beam. It can cause devastating damage to eyes. Therefore, do not set the instrument at eye level.


Before use. Check that instrument settings have not been disturbed during transportation or if the instrument has fallen to the ground. The accuracy of your work is completely your responsibility and you should regularly check your instrument. See control below.

Care and handling. This is a precision instrument and should be treated accordingly. Avoid shock, drop and vibration. Always transport the laser in its plastic case. Use and store the laser within the specified temperature range. Always keep the laser dry. Do not let a wet instrument lie in carrying case longer. Remove the batteries if the laser and accessories will not be used for a long time. Clean with a soft, dry cloth. Remove the batteries if the laser is to be used for a long time.

Horizontal. Press . The laser will always start with automatic self-leveling. The laser flashes while auto-leveling progress. Then the LED is on constantly and the laser begins to rotate.


Vertically. Place the laser with the handle up. Either on the ground or with the wall bracket.





Press . The laser starts 0 rpm. Press  to start the rotation.




Shutdown. Press  to shutdown the laser when it is on.





Automatic self-leveling. The laser will always start with automatic self-leveling. Stops and

flashes when it knocked out of his position and restarts automatically after new self-leveling.

Press  to enter manual mode and self-leveling off.

Scanning Mode. The laser beam are scanning sideways. The laser beam becomes visually apparent than during rotation. Press  button to start scanning mode. Increase or decrease the scanning angle with  button. The scan area is turned sideways with   buttons.







Rotation speed. Press  to increase or decrease the speed of rotation. At a slow rotation, the laser beam is visually apparent, while a high speed is preferable when using the laser receiver. At 0 rpm turns the laser spot sideways with the   buttons.





Slope mode. Press the  and at same time at . Tilt the laser along the Y axis with the   buttons. Read the inclination towards a level rod. 100 cm level difference at 10 m = 1% incline.

Tilt mode. Is a safety feature to prevent the laser automatically restarts after having been knocked out of his position and possibly changed the altitude. Under automatic self-leveling mode, press




the . If the laser is disturbed stops, LED flash alarm for 12 seconds and the laser must be restarted. Check altitude after restarting correspond the altitude before the stop.





Control. Figure 3. Place the laser about 15 m from a wall and align X axes against the wall. Start the laser. Mark X1 on the wall. Rotate the laser 180° without altitude changes. Mark X2 level. The difference between X1 and X2 may be no more than 3 mm at 15 m distance. Repeat the test with Y1 and Y2 axis.

Calibration. Press the  and  keys at same time. Release only  and after 3 seconds Y indicator flashes once and then flashes X indicator, and then X indicator lit constantly. Now release the  button. Adjust the X axis with the   buttons until the X axis falls between the earlier marks.

When the adjustment of the X axis is complete, press the  to set the Y axis. Rotate the device 90° without altitude changes. When Y indicator lights constantly, adjust the Y axis with the   buttons in the same way. Press  to save the calibration. Calibration is complete and the unit is powered off.

Control/Calibration of the Z axis. Figure 4. Place the laser in the vertical position between two walls by about 10 m distance, with the laser bottom side 0.5 m away from one wall. Mark the top dot and the down dot on the wall. Move the instrument to opposite wall with the bottom side 0.5 m from the wall, adjust the laser height so that the down dot is in the same position with previous top dot. If the error between the previous down dot and top dot is more than 4 mm, calibration

should be done. Press the  and  keys at same time. Release only  and after 3 seconds X indicator flashes once and then flashes YZ indicator lit constantly. Now release the

 button. Adjust with   buttons Z axis setting. Press  to save the calibration. Calibration is complete and the unit is powered off.

Batteries. Connect the battery charger with 230 V and to the connector on the laser side panel. The battery charger LED red when charging and green when fully charged battery. Charging about 4 hours and 6 hours for a new discharged battery. Operation time approximately 24 hours per charge. At low battery capacity stops the laser to rotate and start flashing. For optimal battery life, fully charge the battery after the battery is discharged. Keep in mind that the battery capacity is affected by temperature.

Remote control. Can be used on a maximum of 30 m. Battery 2 pc. 1.5V AA.

Laser receiver. Screw the holder into the threaded bush on the rear panel of the receiver to be used with a level rod. Operation time 40 hours. Battery 9V 6F22.



On or off. Automatic shut-off after 10 minutes of laser signal or keystroke.



Choice of accuracy. † narrower reception area $\pm 1,0$ mm and ‡ a wider area $\pm 2,5$ mm.



Beep on or off. Always starts with audio on.



Display illumination on or off. The light turns off automatically after 1 minute without laser signal or keystroke.

Wall Mount / Floor Plate: Figure 2. For wall mounting, mounting bracket on the left side with hanging hole outwards. For floor placement and vertical rotation, swivel mounting hole inward. The foot is aligned with the laser dot and can be placed directly on a mark in the floor for easier adjustment.