



BEITER

MOTORIZED ROTARY LASER LEVEL RED/GREEN

Model No.: RR3602 / GR3602



TO PREVENT SERIOUS INJURY, READ
AND UNDERSTAND ALL WARNINGS
AND INSTRUCTIONS BEFORE USE.

OPERATING INSTRUCTIONS

WARNINGS

PLEASE ENSURE INSTRUCTION MANUAL, ALL WARNINGS AND LABELS ARE READ AND UNDERSTOOD BEFORE USING THIS PRODUCT.

Please Store This Instruction Manual in The Carry Case For Future Reference.

- Avoid direct eye exposure.
- Do not stare into the laser beam (not even from far way).
- Do not use the laser intensive glasses as safety goggles, sunglasses or when driving.
- Do not point laser in the direction of other people or animals.
- Do not point laser in the direction of mirrors or other reflective surfaces.
- Store in a secure location when not in use.
- Laser should not be used as a toy or by children.
- Do not view beam through optical instruments such as theodolites, binoculars, cameras or magnifying lenses.
- Avoid using laser in darkened areas. Ensure sufficient lighting levels to avoid causing damage to eyes.
- Set up cross-line laser to ensure laser beam path is above or below eye level.
- Ensure cross-line laser is securely set up to avoid accidental movement.
- Do not break up or throw the battery into fire. Please recycle the battery after use.
- Do not use or keep the instrument in humid environment.
- Do not disassemble the instrument or attempt to perform any internal servicing as this will void your warranty. No user serviceable parts included. Only approved and authorized service technicians can carry out warranty repairs.

WARNING!

This is a high precision instrument - To avoid damage always transport instrument and store with pendulum lock on and in the carrying case.

ITEM CHECKLIST

please ensure the following items are included with your laser.
If anything is missing please contact your retailer.



SPECIFICATIONS

Model	RR3602 (RED LASER)	GR3602 (GREEN LASER)
Laser Class/ wavelength	Class 3R/ 635nm semiconductor diode (Down point:650nm)	Class 3R/ 532nm semiconductor diode (Down point:650nm)
Working range	Diameter 400m (by using detector)	Diameter 600m (by using detector)
Auto-leveling range	$\pm 5^{\circ}$	
Spinning speed	Continuously adjust	
Deviation of leveling	Horizontal: $\pm 15''$	Vertical: $\pm 20''$
Scan mode	Scan-width adjustable, and can be adjusted continuously	
Plumbing accuracy	$\pm 1\text{mm}/1.5\text{m}$	
Environment& waterproof	Indoor/ Outdoor IP65	
Power	DC4.8V-6V (NI-MH rechargeable battery *4)	
Operating time	Approx. 20 hours	Approx. 16 hours
Operating temperature	$-20^{\circ}\text{C}---+50^{\circ}\text{C}$	$0^{\circ}\text{C}---+40^{\circ}\text{C}$

PRODUCT OVERVIEW



Control Panel

- ON/OFF: Controlling the state of power.
- Power indicator: When it lights, the instrument is starting up. Otherwise it is closing down.
- Mode indicator: When it lights, the instrument is leveling manually. When it winks, it stays in alarm. (The slope of the instrument is out of range).
- Key of Automatic drift system model: Warning for a misaligned device.
- Light of Automatic drift system model: When the light is twinkling slowly, it is in Automatic Drift System model. When the light is twinkling quickly, the laser level will not level when it is shaken.
- Speeding-up: Circling 5-knots speed of scanning:0-60-120-300-6000 r.p.m
- Directional scanning: Circling angles of scanning:0-10°-45°-90°-180°
- Manual/Automatic: Controlling the mode of leveling.
- Left-spinning: Making the laser module step-move counter-clockwise, when the laser module is power off or it is scanning directionally.
- Right-spinning: Making the laser module step-move clockwise, when the laser module is power off or it is scanning directionally.

OPERATION

LASER LINE INDICATION

Upright-setting



Horizontal-setting



When the instrument is set upright, it will emit laser-beam to form a horizontal scanning surface and a plumb line automatically. When set horizontally, it will form a plumb scanning surface and a vertical line.

ON/OFF

Press the ON/OFF key, the power lamp lights and the auto-leveling is start.

When the power indicator blinks, it means the voltage of the batteries is insufficient. Then the rechargeable batteries need to be charged.

Press the On/Off key again to close down the instrument when power indicator goes out.

LEVELING

Press the ON/OFF key to bring automatic leveling into function when the laser beam begins to wink and the Auto leveling lamp is light. After automatic leveling, the laser module will rotate right at the speed of 300r.p.m. If the instrument is placed improperly, or the slope of instrument exceeds the range from -5° to +5°, when the Auto leveling lamp turning off and the laser beam will wink at the same time. Then place the instrument properly.

Notes: The instrument will shut off automatically after the alarming of leveling limit for 5 minutes.

SPINNING

(1) Rotating Mode

Change the direction and speed of the rotary head by the relative keys which on the control panel.

Turn the rotary head to clockwise with Clockwise Rotation Key; otherwise, press the counter Clockwise Rotation Key.

Press the “+” key, rotation accelerated. Right-spinning Indicator or Left-spinning Indicator will blink.

Press the “-” key, rotation decelerated. Right-spinning Indicator or Left-spinning Indicator will blink.

(2) Stopping rotation and single step rotating mode

Press the STOP key, the rotary head stops, and then keeping press Right-spinning key, the rotary head rotates in the single step clockwise. When keeping press the Left-spinning key, the rotary head rotates in single step counterclockwise.

(3) Press STOP key again, the rotary head spins at last speed and direction.

DIRECTIONAL SCANNING

(1) Stop the laser module by pressing the Stop Key.

(2) Starts laser module with Scan Key.

(3) Press the “+” or “-” key to change the width of scan.

(4) Keeping Press the “R” or “L” key can change the direction of scan (360°).

(5) Stop the directional scanning by press the Scan Key for 3 seconds. And then press the Stop Key to resume the state of the rotation.

SLOPE ADJUSTMENT

In the horizontal rotation, the instrument can set up incline in X&Y direction.

(1) Press the POWER key. Press the STOP key, the laser module stops rotation.

(2) After Leveling lamp lights, double press the SET key, with the lamp lights, which indicated in the incline mode. (It's acquiescence to select Y-AXIAL as the slope axial, and the Right-spinning Indicator lights.)

(3) After the instrument goes into Incline Setting Mode, chose X&Y direction by press the Right-spinning key or the Left-spinning key.

(4) After the instrument goes into Incline Setting Mode and make sure the axial selected, keeping click “+” or “-” to control the setting angle.

(5) Press the SET key and the SET Lamp is off, which means the incline mode is off; the instrument comes back to the original state.



POWER SUPPLY

When the voltage indicator lights, the batteries needs to be charged immediately. Connecting the charger with AC, insert the plug of charger into the plughole at the bottom of the instrument (As depicted above).

If the indicator of charger lights, it shows the batteries are being charged.

If the indicator light of the charger winks, it shows the course of recharging has ended.

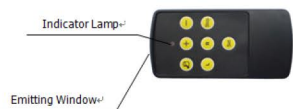
Notes :

- Using the standard rechargeable batteries of the instrument, recharging will be finished within 7 hours.
- Power required for the charger: Frequency: 50-60HZ; Voltage: 85-265V.
- Charging and using of the instrument can progress simultaneously.
- If keeping the instrument in storage (or leave the instrument unused for a long time), the batteries (dry battery or rechargeable battery) needs to be taken out.
- Brand-new rechargeable batteries of long-time unused rechargeable batteries need to be recharged and discharged three times to attain the capacity required.

REMOTE CONTROL

The remote of the instrument adopts the infrared technique.

Aim the aperture of infrared ray to the instrument (as depicted below) to bring remote controlling into function (Available distance: indoor: 30m; outdoor: 20m). The telecontrolling panel includes 7 keys; the indicator on the device will wink to show the operating signal has been sent out once pressing any key.



CHECKING AND ADJUSTING

Horizontal Plane calibration

Checking

(1) Place the instrument at the point of 50m in front of wall (or set a scale plate at the point of 50m away from the instrument), and then adjust the level of the base approximately to aim the X1 to the wall (or scale plate).

(2) After switching on the power, use the laser detector measuring the h_1 of X1-beam on the wall of scale plate.

(3) Loose the screw of the tripod, and then turn around the instrument 180° to measure the h_2 of X2-beam on the wall or scaleplate.

The value between h_1 and h_2 ought to be less than 7.5mm.

(4) Check the Y-beam in the same way.

Adjusting

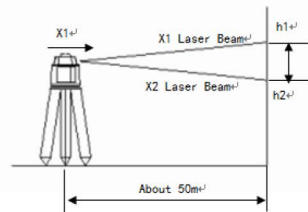
(1) Press the POWER key.

(2) Press the STOP key, the laser module stops rotation.

(3) Press AUTO/MANUAL key for 3 seconds goes into Adjusting Mode, Setting lamp is blinking, then press it again, the SET lamp is on.

(4) Press the Left-spinning Key ,the lamp is on, and in the adjusting for X direction mode. Click the "+" or "-" to adjust the axial selected.

(5) Press the Right-spinning Key ,the lamp is on, and in the adjusting for Y direction mode. Click the "+" or "-" to adjust the axial selected.



(6) Press AUTO/MANUAL key for 3 seconds which means the adjusting mode is off. The instrument will power off.

(7) Turning on the instrument again, the adjusting is finished.

Notes: 50m adjusting range is within 10mm ($h_1 - h_2 \leq 10$), out of this range, please contact the manufacturer to repair.

Horizontal Line Calibration

Checking

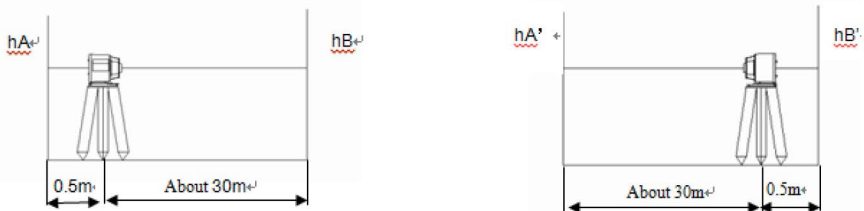
(1) Place the instrument between two walls with the distance of 30m (or two scaleplates with the distance of 30m).

(2) Place the instrument according to horizontal setting and then adjust the instrument.

(3) Switch on the power, and then measure the middle point of the laser beam on the wall (or scaleplate): h_A, h_B and h_A', h_B'

(4) $\Delta 1 = h_A - h_A'$, $\Delta 2 = h_B - h_B'$

The value between $\Delta 1$ and $\Delta 2$ ought to be less than 6mm.



MAINTENANCE AND SERVICE

- Do not attempt to open the instrument. To assure product safety and reliability, repairs, maintenance and adjustment should be performed by authorized service centers. Warranty void when case is opened. To locate your nearest service center, contact your dealer.
- Do not drop, knock, or shake the instrument to avoid affecting precision. For short distance moving, it should be handled with care. While moving or transporting at a long distance, the instrument should pack into the carrying case.
- Keep the instrument clean at all times. Please clean the surface without alcohol or ether; Use a soft cloth with mild soap for body, and lens tissue for glass windows.
- Please make sure the conjunction between the instrument and tripod during the using.
- Please lock the carrying case for keeping instrument dry. After using in moist or rainy environment, put it into the package case after dry.
- The instrument working environment temperature is -20°C to 50°C , higher than this temperature please don't instrumentation.
- When the instrument speed obviously reduces slow or laser the bright degree obviously become weak, please charged by DC charger. Take out the batteries when you don't use the instrument for a long time.



WARRANTY

This warranty is provided by Beiter authorized distributor.

Express warranty

Subject to the exclusions set out below, we warrant that this product will be free from defects in materials or workmanship for a period of 12 months from the date of purchase.

Warranty exclusions

This express warranty does not apply where a defect or other issue with the product is caused by normal wear and tear, misuse or abuse of the product.

Consumer guarantees

You are entitled to a replacement for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Warranty claims

To make a claim under this warranty, you must bring the product along with the proof of purchase and any other documentary evidence which you think is relevant to Beiter Laser's place of purchase where the claim will be handled on our behalf. Any cost incurred by you in bringing the product to the place of purchase will be borne by you.

To make a claim under this warranty, the product and proof of purchase must be returned to the Beiter's dealer during the warranty period specified above.

If your warranty claim is accepted, we (or the Beiter Laser store that handles the claim on our behalf) will, at our discretion, repair or replace the product.



BEITER Authorized distributor:

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