



Self-Leveling Five-Beam Laser Dot
Model No. 40-6680



Instruction Manual

Congratulations on your choice of this Self-Leveling Five-Beam Laser Dot. We suggest you read this instruction manual thoroughly before using the instrument. Save this instruction manual for future use.

This tool emits five laser beams, which projects a series of visible points on surfaces around the product (i.e. left, right, front, up, and down). Beam visibility depends upon lighting conditions in the work area.

This is a Class IIIa laser tool and is manufactured to comply with CFR 21, parts 1040 .10 and 1040 .11 as well as international safety rule IEC 285.

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1. Kit Contents

Description	Qty.
Self-Leveling Five-Beam Laser Dot	1
Multi-functional Magnetic Base	1
Mounting Strap	1
“AA” Alkaline Batteries	3
Tinted Goggles	1
Magnetic Target	1
Instruction Manual with Warranty Card	1
Soft-sided Carrying Case	1

2. Features and Functions

- Product simultaneously projects five laser beams (up, down, front, left and right directions).
- Magnetic dampened compensation system.
- Maintains level even when effected by vibration on the job site.
- Laser beam flashes and sounds audible alarm when product is beyond leveling range.
- Low voltage indication when power indication lamp is flashing.
- Pendulum locking mechanism helps protect units inner mechanisms.
- Multi-functional magnetic base for attaching to tripod or any metal surface.
- Dust and rain resistant.



3. Safety Instructions

Please read and understand all of the following instructions, prior to using this tool. Failure to do so, may void the warranty.

DANGER!

Class IIIa Laser Product
Max. Power Output: $\leq 5\text{mW}$
Wavelength: 640-660nm

**THIS TOOL EMITS LASER RADIATION.
DO NOT STARE INTO BEAM.
AVOID DIRECT EYE EXPOSURE.**



ATTENTION



IMPORTANT

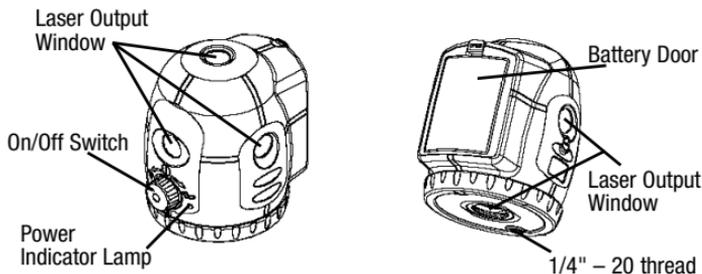
- Read all instructions prior to operating this laser tool. Do not remove any labels from tool.
- Do not stare directly at the laser beam.
- Do not project the laser beam directly into the eyes of others.
- Do not set up laser tool at eye level or operate the tool near a reflective surface as the laser beam could be projected into your eyes or into the eyes of others.
- Do not place the laser tool in a manner that may cause someone to unintentionally look into the laser beam. Serious eye injury may result.
- Do not operate the tool in explosive environments, i.e. in the presence of gases or flammable liquids.
- Keep the laser tool out of the reach of children and other untrained persons.
- Do not attempt to view the laser beam through optical tools such as telescopes as serious eye injury may result.
- Always turn the laser tool off when not in use or left unattended for a period of time.
- Remove the batteries when storing the tool for an extended time (more than 3 months) to avoid damage to the tool should the batteries deteriorate.
- Do not attempt to repair or disassemble the laser tool. If unqualified persons attempt to repair this tool, warranty will be void.
- Use only original Johnson® parts and accessories purchased from your Johnson® authorized dealer. Use of non-Johnson® parts and accessories will void warranty.



4. Location/Content of Warning Labels



5. Location of Part/Components



6. Operating Instructions

IMPORTANT: It is the responsibility of the user to verify the calibration of the instrument before each use.

Battery Installation

Note: Always check to be sure that the on/off switch is in the off position before removing and replacing batteries.

1. As shown in fig. 3, remove battery cover.
2. Put three "AA" alkaline batteries into the battery compartment noting polarity (as shown). **Note:** Remove white sensormatic tag before installing the batteries.
3. Re-attach the battery cover.

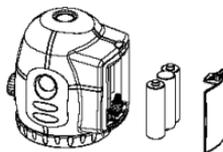


Fig.3

Note: Used (discharged) batteries are hazardous waste and should be disposed of properly.

Using the Instrument

1. Place product on a relatively smooth, flat, and level surface.
Note: Product must be within $\pm 4.5^\circ$ of level for self-leveling feature to function properly. Greater than 4.5° will result in an alarm condition (flashing laser and intermittent beeping sound).
2. Rotate on/off switch fully clockwise. This will release the self-leveling locking mechanism and turn unit on.
3. Turn unit off by rotating on/off switch fully counter clockwise. This will engage the self-leveling locking mechanism and turn unit off, ensuring that the unit will not get damaged when moved or stored.



7. Using the Product

This laser level was designed for various mounting applications.

1. Position laser base so laser beam shoots between the feet of the base for plumb applications.
2. Base top being rotated to shoot the laser beam down the back of the base.
3. Position base by rotating top to shoot beam down the back of the base. Ideal for use with metal track.
4. Rare earth magnets located on base allows the base to attach to metal surfaces.





8. Self-Check & Fine Calibration

IMPORTANT: It is the responsibility of the user to verify the calibration of the instrument before each use.

Self-Check Calibration

1. With the laser on its base and set on a flat platform inside a room, turn the laser on.
2. Mark the down beam location and use this as your reference point.
3. Locate the up beam and mark its point as position A.
4. Rotate the laser (not moving the base) 180° by swiveling the laser on its base and mark the up beam location as position B.
5. Rotate the laser 90° and mark the up beam location as position C.
6. Rotate the laser 180° and mark the up beam location as position D.

Note: Do not move the base and always have the down beam in the same location.

7. Connect the four dots. Connect A to B and C to D.
8. If the center point (E) is more than $1/8''$ at 50' or $1/32''$ at 12.5' from points A, B, C and D, the unit needs to be recalibrated.

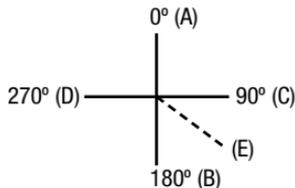


Fig. A





Fine Calibration

1. Remove plastic screws on front and left of the laser.
2. With the unit on its base on a flat platform, turn the laser on.
3. Return the laser back to its original starting point when self-checking the laser.
4. Use a 2mm allen wrench to turn the front adjusting screw to position the laser beam forward and backward.
5. Use the side adjusting screw to position the laser beam left and right.
6. Move the top beam to the intersection of the 4 dots shown in Fig. A of self-check calibration.
7. Perform another self-check calibration as described previously to make sure the laser is calibrated.
8. If the laser is still beyond its accuracy specification, recalibrate the laser again.
9. If laser is still out of calibration, contact Johnson Level & Tool for service.
10. Return the plastic screws being careful to not over tighten.





Self-Checking the 3 Horizontal Beams

- As shown in Fig. 9.1, set up the instrument on the tripod or flat platform 50 ft. (9.1m) from an upright wall. Aim the front beam at the face of the wall. Mark the point projected on the wall by front beam as A.
- Turn the instrument clockwise (Fig. 9.2) to make the point projected by right laser beam on the same exact line as point A, and then mark the point as B.
- Turn the instrument counterclockwise (Fig. 9.3) to make the point projected by left laser beam on the same exact line as point A, and then mark the point as C.
- The vertical distance between points A, B and C should not exceed 0.125" (3.2mm).
- If laser exceeds 1/8" at 50', contact Johnson Level & Tool for service.

Fig. 9.1

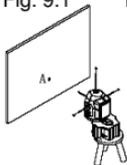


Fig. 9.2

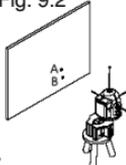
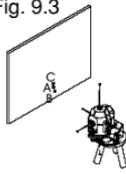


Fig. 9.3





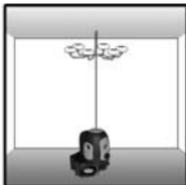
9. Technical Specifications

Laser Wavelength	650nm±10
Laser Classification	Class IIIa
Maximum Power Output	≤5mW
Accuracy	±1/8"/50 ft. (±2mm/10m)
Interior Range	Up to 200 ft. (60m) depending upon light conditions
Self-Leveling Range	±4.5°
Power Supply	3 "AA" alkaline batteries (included)
Dimensions	3.150" x 3.858" x 4.000" (80 x 98 x 101.6mm)
Weight	1.101 lbs. (0.5 Kg)
Working Temperature	14° F to 113° F (-10° C to +45° C)
Center Screw Thread	5/8" – 11; 1/4" – 20

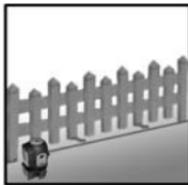




10. Application Demonstrations



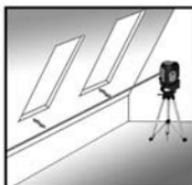
Plumb reference for lamp installation



Reference for fence installation



Reference for pipeline installation



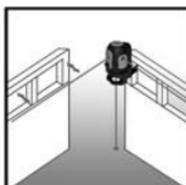
Reference for dormer installation



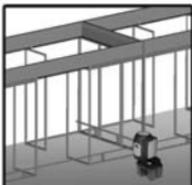
Reference for door frame installation



Reference for baseboard installation



Reference for vertical partition



Reference for constructing cubic partition





11. Care and Handling

- This laser unit is a precision tool that must be handled with care.
- Avoid exposing unit to shock vibrations and extreme temperatures.
- Before moving or transporting the unit, make sure that the unit is turned off.
- Remove the batteries when storing the unit for an extended time (more than three months) to avoid damage to the unit should the batteries deteriorate.
- Always store the unit in its case when not in use.
- Avoid getting the unit wet.
- Keep the laser unit dry and clean, especially the laser output window. Remove any moisture or dirt with a soft, dry cloth.
- Do not use harsh chemicals, strong detergents or cleaning solvents to clean the laser unit.

12. Product Warranty

Johnson Level & Tool offers a three year limited warranty on each of its products. You can obtain a copy of the limited warranty for a Johnson Level & Tool product by contacting Johnson Level & Tool's Customer Service Department, as provided below, or by visiting our web site at www.johnsonlevel.com. The limited warranty for each product contains various limitations and exclusions.

Do not return this product to the store/retailer or place of purchase. Non-warranty repairs and course calibration must be done by an authorized Johnson® service center or Johnson Level & Tool's limited warranty, if applicable, will be void and there will be NO WARRANTY. Contact one of our service centers for all non-warranty repairs. A list of service centers can be found on our web site at www.johnsonlevel.com or by calling our Customer Service Department. Contact our Customer Service Department for Return Material Authorization (RMA) for warranty repairs (manufacturing defects only). Proof of purchase is required.





NOTE: The user is responsible for the proper use and care of the product. It is the responsibility of the user to verify the calibration of the instrument before each use.

For further assistance, or if you experience problems with this product that are not addressed in this instruction manual, please contact our Customer Service Dept.

In the U.S., contact Johnson Level & Tool's Customer Service Department at 888-9-LEVELS.

In Canada, contact Johnson Level & Tool's Customer Service Department at 800-346-6682.

13. Warranty Registration

Enclosed with this instruction manual you will find a warranty registration card to be completed for your product. You will need to locate the serial number for your product that is located inside the battery compartment. **PLEASE NOTE THAT IN ADDITION TO ANY OTHER LIMITATIONS OR CONDITIONS OF JOHNSON LEVEL & TOOL'S LIMITED WARRANTY, JOHNSON LEVEL & TOOL MUST HAVE RECEIVED YOUR PROPERLY COMPLETED WARRANTY CARD AND PROOF OF PURCHASE WITHIN 30 DAYS OF YOUR PURCHASE OF THE PRODUCT OR ANY LIMITED WARRANTY THAT MAY APPLY SHALL NOT APPLY AND THERE SHALL BE NO WARRANTY.**





14. Accessories

Johnson® accessories are available for purchase through authorized Johnson® dealers. Use of non-Johnson® accessories will void any applicable limited warranty and there will be NO WARRANTY. If you need any assistance in locating any accessories, please contact our Customer Service Department.

In the U.S., contact Johnson Level & Tool's Customer Service Department at 888-9-LEVELS.

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