



Self-Leveling Two, Three or Five-Beam Laser Dot

Model No. 40-6692, 40-6693, 40-6695, 40-6678



40-6692



40-6693



40-6695 & 40-6678

Instruction Manual

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

These lasers either emit two, three or five laser beams, which projects a series of visible points on surfaces around the product: 40-6695 & 40-6678 (left, right, front, up, down) 40-6693 (front, up and down) and 40-6692 (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

<u>Description</u>	<u>Qty.</u>
Self-Leveling Two, Three or Five-Beam Dot Laser	1
Multi-Functional Magnetic Base	1
Mounting Strap	1
“AA” Alkaline Batteries	3
Magnetic Floor Target (40-6693, 40-6695)	1
Instruction Manual	1
Soft-Sided Pouch and Hard-Shell Carrying Case (40-6692, 40-6693, 40-6695)	1
Hard-Shell Carrying Case (40-6678)	1

2. Features and Functions

- Product simultaneously projects two, three, or five laser beams 40-6695 & 40-6678 (left, right, front, up and down), 40-6693 (front, up and down) and 40-6692 (up and down).
- Magnetic dampening compensation system.
- Maintains level even when affected by vibration on the job site.
- Laser flashes and sounds an audible alarm when product is beyond leveling range.
- Low voltage indication with power indication light flashing.
- Pendulum locking mechanism helps protect unit’s 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.

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.

DANGER!

Class IIIa Laser Product

Max. Power Output: $\leq 5\text{mW}$

Wavelength: 625-645nm

THIS TOOL EMITS LASER RADIATION.

DO NOT STARE INTO BEAM.

AVOID DIRECT EYE EXPOSURE.



4. Location/Content of Warning Labels

40-6692



40-6695 & 40-6678

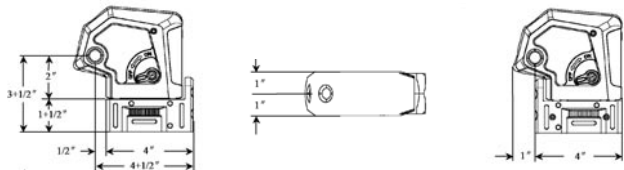


40-6693



5. Location of Part/Components





6. Operating Instructions

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

Alkaline 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 figure, unscrew the battery cover and put 3 “AA” alkaline batteries into the battery compartment noting the polarity as shown in the battery compartment. Screw the battery cover shut. Turn the on/off switch to on. If the power LED is flashing, the battery is low.

7. Using the Product

Power on/off

Turn the compensator lock on/off switch in the direction indicated by the arrow.



To unlock and turn laser on.



To lock and turn laser off.

Note: Product must be within $\pm 3^\circ$ of level for self-leveling feature to function properly. Greater than $\pm 3^\circ$ will result in an alarm condition (flashing laser and intermittent beeping sound).

Output of laser line:



This laser level was designed for various mounting applications.

1. Laser base can be attached to a 5/8" x 11 or 1/4" x 20 tripod.



2. Laser can be attached to a pole or ladder by using the mounting strap.



3. Position the laser by rotating the laser to shoot the beam down the back of the base. Ideal for installing metal track.



4. Rare earth magnets located on base allows the base to attach to metal surfaces.



5. The laser can be attached to a wall with a nail/screw using the wall hang hole.



8. Self-Check & Fine Calibration

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

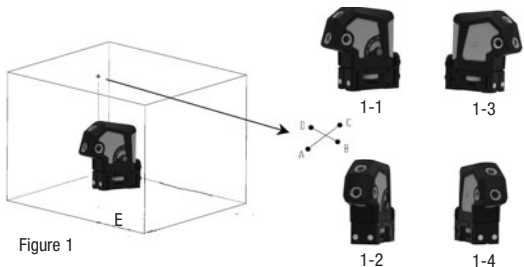


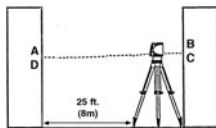
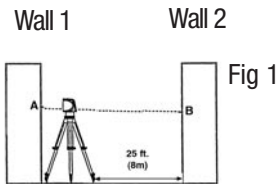
Figure 1

Accuracy Check - Plumb point accuracy self-check

1. As shown in figure 1, put the unit on the ground in the direction shown in figure 1-1.
2. Power on the unit and mark the center of plumb-down as point “E” and plumb-up point as “A”.
3. Turn the unit 90° (as shown in figure 1-2) and place the down beam on the “E” mark. Mark the center of the plumb-up point as “B”.
4. Turn the unit 90° again (as shown in figure 1-3) and repeat step 3. Mark the center of the plumb-up point as “C”.
5. Turn the unit 90° again (as shown in figure 1-4) and repeat step 3. Mark the center of the plumb-up point as “D”.
6. Marks A-D should all be in the same spot. If not, the unit will need to be recalibrated. Please see calibration adjustment information.

Accuracy Check - Horizontal Laser (40-6693, 40-6695, 40-6678)

1. Set the instrument on a level surface such as a flat head tripod located between two walls (marked 1 & 2) approximately 25 feet apart. (See fig. 1). The laser should be as close as possible to wall 1.
2. Point the instrument directly at wall 1. Turn the laser on and mark the beam as point A.
3. Turn the instrument 180 degrees so that the laser is pointed directly at wall 2. Mark the beam on wall 2 as point B.
4. Move the instrument and the tripod so the laser is positioned as close as possible to wall 2 (see fig. 2). Level the tripod and position the instrument on the tripod facing wall 2. Turn the laser on and mark the beam as point C.
5. Turn the laser off and rotate the laser 180 degrees so that it is facing directly to wall 1.
6. Turn on the laser and mark the beam as point D.
7. Measure the vertical distance between points A & D.
8. Measure the vertical distance between points B & C.
9. If the differences in distance between points A & D and points B & C is less than $1/8''$ at 25', your instrument is within its tolerance.
10. If it is greater than $1/8''$ at 25', your unit will need to be recalibrated.



Calibration

1. Locate the back port rubber plug and side calibration port plastic plug.
2. Carefully remove the rubber plug in the battery compartment and the plastic plug on the side of the laser.
3. Compensator must be unlocked before making calibration adjustments.
4. Use a 3mm Allen wrench.
5. For adjustment to the level/front beam, turn the Back (Figure I) calibration screw clockwise to raise the beam and counter-clockwise to lower the beam.
6. For adjustment to the plumb beam, turn the Side (Figure H) calibration screw clockwise to move the plumb beam away from you and counter-clockwise to move the beam toward you.



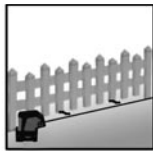
9. Technical Specifications

Laser Wavelength	635nm±10
Laser Classification	Class IIIa
Maximum Power Output	≤5mW
Accuracy	±1/8"/50 ft. (±2mm/10m)
Interior Range	Up to 100 ft. (30m) depending upon light conditions
Self-Leveling Range	± 3°
Power Supply	3 "AA" alkaline batteries (included)
Battery Life	Approx. 50 hours of continuous use
Dimensions	5.00" x 1.97" x 5.75" (127 x 51 x 146mm)
Weight	1.43 lbs. (0.65 Kg)
Working Temperature	14°F to 113°F (-10°C to +45°C)
Center Screw Thread	1/4" - 20 and 5/8" - 11
IP Protection Class	54

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 construction
cubic partition



Reference for vertical 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

Please register within 30 days of purchase. Registering ensures we have your information on file for warranty service even if you lose your receipt, and lets us contact you if there is ever a product recall. We will never sell your information and only send you marketing information if you opt-in.

To register, go to www.johnsonlevel.com/register.

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.

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

15. Troubleshooting

Symptom	Possible Cause	Solution
Will not turn on	Batteries missing or depleted	Change the batteries
	Polarity reversed	Check polarity
	Compensator locked	Unlock compensator
Turns off after a short time	Batteries depleted	Change the batteries
Flashing or Beeping	Laser is beyond leveling range	Place on surface within 3° of level
	Laser is out of calibration	Perform calibration check and calibrate laser if needed
Laser is not accurately reading plumb, level or square	Laser is out of calibration LESS THAN 1/2" per 50'	Calibrate laser (procedure in the manual) or return to Johnson dealer for calibration
	Laser is out of calibration MORE THAN 1/2" per 50'	Return to Johnson dealer for service
Laser will not calibrate	Laser core parts may be misaligned beyond the limit of field calibration	Return to Johnson dealer for service
Laser light appears dim	Batteries are weak	Replace batteries
	Improper battery type	Ensure high quality Alkaline batteries are used
	Ambient temperature too high/low	Ensure temperature is within operating range listed under specifications