

Thank you for purchasing this Johnson crossline laser. Lasers are the easiest way to lay out your jobsite, helping you to work faster, safer and smarter.

## SAFETY INFORMATION

This is a Class II laser tool and is manufactured to comply with CFR 21, parts 1040.10 and 1040.11 as well as international safety rule IEC 285.

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

### ATTENTION:

- Read all instructions before operating this tool. Do not remove any labels from the tool.
- Do not project the laser into the eyes of others.
- Do not set up the laser tool at eye level, or operate the tool near reflective surfaces, as the beam can be projected into your eyes or 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 - serious eye injury may result.
- Always turn off the laser tool when not in use or when left unattended for any period of time.
- Disassembly or repair by unqualified persons will void the warranty.

### SAFETY LABEL LOCATION



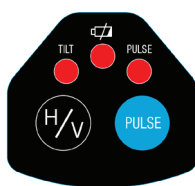
40-6650

40-6651  
40-6657

## MAIN COMPONENTS



## OPERATING PANEL OVERVIEW



**H/V:** Toggles between horizontal beam, vertical beam, both and off.  
**PULSE:** Enables pulse mode, so the laser can be used with a detector.  
**TILT LED:** Illuminates when TILT mode is active.

**BATTERY LED:** Flashes when the battery is low.  
**PULSE LED:** Indicates pulsed operation is enabled.

## INSTALLING BATTERIES

Models 40-6650 & 40-6657 require 4 "AA" alkaline batteries to operate, while model 40-6651 operates from an internal lithium ion battery pack or 4 "AA" batteries. Lift the latch on the battery door and pivot the door open to install batteries. Always install batteries per the indicated polarity and using the battery holder.

**NOTE:** When storing the tool for more than three months, remove the batteries to prevent corrosion.





## UNLOCKING THE PENDULUM

The pendulum lock secures the laser during transport to prevent damage to the self-leveling mechanism. It also enables the laser to be used at any angle in manual mode. To lock the pendulum, rotate the pendulum lock switch to the **OFF** position, indicating the laser will be powered off. To unlock the pendulum and allow it to self-level, rotate the switch to the **ON** position, indicating the laser can be powered on in self-leveling mode.



## OPERATING THE LASER

- Insert batteries. See **INSTALLING BATTERIES**.
- Install the laser on a tripod, the included magnetic wall mount bracket or other stable surface.
- Unlock the pendulum to use in self-leveling mode. Lock the pendulum to use in manual mode. See **UNLOCKING THE PENDULUM**. In manual mode, the **TILT LED** will illuminate to alert you to that the laser is not self-leveling.
- Power on or off each individual laser by pressing . The laser will toggle between illuminating the horizontal beam, vertical beam, both beams and powering off. Disabling a laser you are not using extends the life of the battery.
- Press  at any time to enable pulsed operation, which makes the beam detectable by compatible laser detectors. The **PULSE LED** will illuminate when in pulse mode.
- **Note:** For information about laser detector compatibility and operation, contact Johnson or your local Johnson dealer.
- When you have completed your work, lock the laser pendulum and store the tool in its provided case.

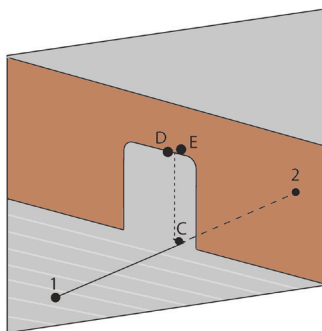


## CHECKING ACCURACY

Before starting any critical work, check your laser for accuracy.

### PLUMB ACCURACY:

- Position laser at P<sub>1</sub> 10' from a doorway.
- Mark beam at P<sub>1</sub>.
- Mark point P<sub>2</sub> 20ft away.
- Mark points C on the floor under doorway and D on top of doorway.
- Move laser to P<sub>2</sub>. Aim through C and P<sub>1</sub>. Mark point E next to D.
- If the distance D to E < 1/16" for a 10' doorway, your plumb laser is properly calibrated.



### HORIZONTAL ACCURACY:

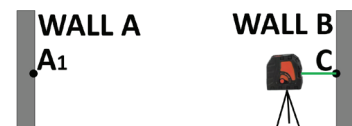
Check accuracy using two walls 20' apart.



1: Set laser next to Wall A. Mark beam height on Wall A as point A<sub>1</sub>.



2: Rotate laser 180°. Mark beam height on Wall B as point C.



3: Set laser next to Wall B and adjust beam to height C.



4: Rotate laser 180°. Mark beam height on Wall A as A<sub>2</sub>.

5: Measure the vertical distance between A<sub>1</sub> and A<sub>2</sub>. If this distance is smaller than 1/8" at 20', your laser is properly calibrated.

**NOTE:** If your laser needs calibration or service, return it to a Johnson authorized service center for repair.

## TROUBLESHOOTING

- **Tool does not power on or remain on:** Replace batteries. Check battery polarity.
- **Laser flashing or emitting audible tone:** Laser is outside of its self-leveling range.
- **Battery light flashes, laser appears dim:** The batteries have depleted. Replace or recharge the batteries.
- **Laser does not self-level:** Unlock the pendulum. See **UNLOCKING THE PENDULUM**.
- **Laser is not detectable by a laser detector:** Ensure PULSE mode is enabled. Ensure the detector is compatible with the laser's wavelength and is meant to detect pulsed laser lines. Contact Johnson or your local Johnson dealer for help in choosing a suitable laser detector to use with your laser.

## SPECIFICATIONS

<b>Laser</b>	Class II <1mW, 650nm (40-6650), 520nm (40-6651/40-6657)
<b>Accuracy</b>	+/- 1/8" @ 35ft
<b>Interior Range</b>	Up to 200'
<b>Self-Level Range</b>	+/- 3°
<b>Power Supply</b>	4 x "AA" Batteries (included in 40-6550 & 40-6557) or Li-ion Battery (40-6651)
<b>Battery Life*</b>	24h/16h (40-6650) 11h/6h (40-6651/40-6657 "AA") 11h (40-6651 Li-Ion)
<b>Operating Temperature</b>	14°F to 113°F
<b>IP Rating</b>	IP54
<b>Weight</b>	0.93lb
<b>Dimensions</b>	4 3/4" x 2 1/16" x 4 1/4"

\*Battery life as tested with Lithium AA / Alkaline AA batteries, and all beams enabled.

## PRODUCT REGISTRATION

Please register your product 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 will only send you marketing information if you opt-in.

To register, scan or click:



[www.johnsonlevel.com/register](http://www.johnsonlevel.com/register)

## PRODUCT WARRANTY

Johnson Level & Tool offers a three-year limited warranty on this product. You can obtain a copy of this warranty on our website or by contacting our customer service department. The limited warranty contains various limitations and exclusions.

**Do not return this product to the place of purchase.** Non-warranty repairs and calibration must be done by an authorized Johnson service center or the warranty will be void. A service center list can be found on our website.

Contact us for an RMA number before sending any product in for service. Proof of purchase is required for warranty service.

**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. If you experience problems with this product, please contact us.

In the US: 888-9-LEVELS (888-953-8357)

In Canada: 800-346-6682

On the Web: [www.johnsonlevel.com](http://www.johnsonlevel.com)

