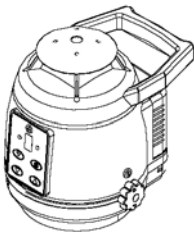




**Self-Leveling Rotary Laser Level
Model Nos. 40-6525 and 40-6530**



Instruction Manual

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

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

For Model No. 40-6525

<u>Description</u>	<u>Qty.</u>
Self-Leveling Rotary Laser Level	1
“C” Alkaline Batteries	4
“C” Alkaline Battery Holder	1
Vertical Mounting Adapter	1
Tinted Glasses	1
Instruction Manual with Warranty Card	1
Hard Shell Carrying Case	1

For Model No. 40-6530

<u>Description</u>	<u>Qty.</u>
Self-Leveling Rotary Laser Level	1
Ni-MH Rechargeable Battery Pack	1
“C” Alkaline Battery Holder (batteries not included)	1
6V Battery Adapter	1
Vertical Mounting Adapter	1
Tinted Glasses	1
Detector with 9V Battery and Quick Clamp	1
Instruction Manual with Warranty Card	1
Hard Shell Carrying Case	1

2. Features and Functions

- Magnetic dampening compensation system.
- Laser sounds alarm when outside its self-leveling range or the compensator is not locked when the laser is placed inside its case.
- Projects a horizontal rotating plane.
- Projects a vertical rotating plane with a 90° split beam.
- Optional scan feature, from small to large, provides user a visible chalk line.
- Adjustable scan direction.
- Adjustable rotation speed.
- Works with both alkaline batteries and rechargeable battery pack.
- 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.

CAUTION: If using this product with any type of tinted goggles, please note safety warning below.

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.**



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 AccuLine Pro™ parts and accessories purchased from your AccuLine Pro authorized dealer. Use of non-AccuLine Pro parts and accessories will void warranty.

WARNING!

The tinted goggles are designed to enhance the visibility of the laser beam. They DO NOT offer protection to the eyes from direct exposure of the laser beam.



4. Location/Content of Warning Labels



DANGER

**LASER RADIATION
AVOID DIRECT EYE
EXPOSURE.**

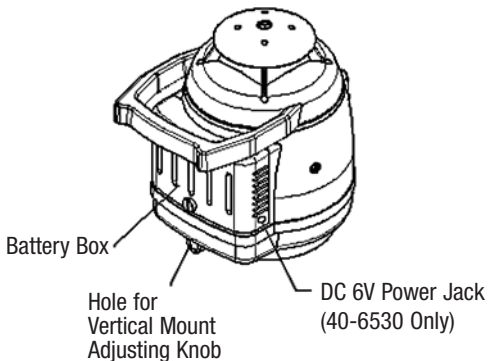
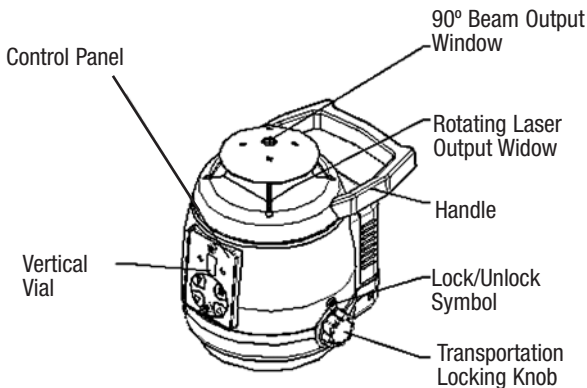
 **MAXIMUM OUTPUT POWER
< 5mW @ 625-645nm**

**CLASS IIIa LASER PRODUCT.
THIS PRODUCT COMPLIES
WITH THE APPLICABLE
REQUIREMENTS OF 21CFR
PARTS 1040.10 & 1040.11.**

Mfg. for Johnson Level & Tool Mfg. Co., Inc.
6333 W. Donges Bay Rd., Mequon, WI 53092

Manufactured in China by JLT05
Date (m/y): _____

5. Location of Part/Components



6. Operating Instructions

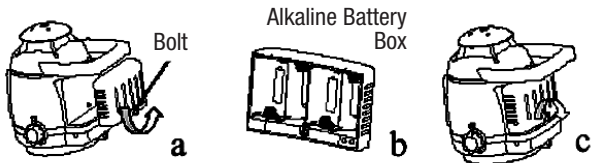
IMPORTANT: It is the responsibility of the user to verify the calibration of the instrument before each use.

Battery Installation

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

Battery kit:

- “C” alkaline battery box
- Rechargeable battery-pack (40-6530 only)



1. Loosen the set-bolt and take the battery box apart from the unit, as shown in fig. a.
2. Put in four “C” batteries (included with 40-6525 only) according to the polarity illustrated in the battery box, and snap the battery box back into place, as shown in fig. b and c.
3. If using the rechargeable battery-pack, (40-6530 only) fix the battery-box onto the unit directly, and tighten the bolt (fig. c).

Note:

- For the first two charges of the new battery pack, it is necessary to charge for 12-plus hours.
- The instrument can still work even if it is being charged with the adapter.
- Do not charge alkaline batteries to avoid explosion.
- Used (discharged) batteries are hazardous waste and should be disposed of properly.

Instrument Usage

1. Put in Ni-MH battery pack (40-6530) or alkaline batteries (40-6525), or connect with 6V DC power (40-6530 only) through power jack.
2. Place the instrument on platform or tripod, connect the tripod to the laser using the 5/8" thread at the bottom of laser.
3. Rotate locking knob counter-clockwise to unlock, then turn power on. Press the keys on control panel to adjust to your desired working status.

Note: If instrument is inclined beyond its self-leveling range, it will deliver an audible alarm. Re- position the instrument until leveled.

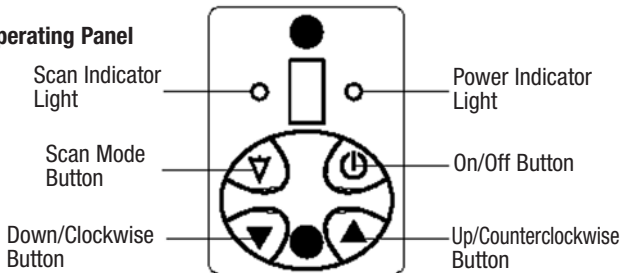
4. After finishing operation or before moving the instrument, proceed to turn power off and return locking knob to the locked position.

Note: If locking knob is not turned to the lock position it will deliver an audible alarm when the unit is returned to its case.

It is important that the locking knob is turned to the locked position prior to returning the unit to its case.

7. Using the Product

Operating Panel



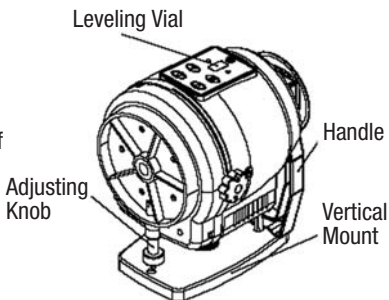
1. On/Off Button
 - Pressing the button will turn the unit on / off after the transportation lock has been turned to unlock in the horizontal mode.
2. Power Indicator Light
 - Lit indicator light means power-on.
 - Unlit indicator light means power-off.
 - Flashing indicator light means low voltage.
3. Scan Indicator Light
 - Solid indicator light means continuous rotation mode.
 - Flashing indicator light means scan mode.
4. Scan mode button
 - With the first press of this button, the instrument emits a short horizontal laser line.
 - With a second press of this button, the instrument emits a longer horizontal laser line.
 - With a third press of this button, the instrument emits a laser point.
 - With a fourth press of this button, the laser will once again rotate.

5. Up-Counterclockwise/Down-Clockwise button
 - In rotation mode
 - Press up to increase rotation speed
 - Press down to decrease rotation speed
 - In scan mode
 - Press down to make the scan line rotate clockwise
 - Press up to make the scan line rotate counter-clockwise

Usage for vertical application

IMPORTANT: Keep “Locking Knob” in the “Locked” position.

1. Install batteries/battery pack as previously discussed.
2. Insert the “Adjusting Knob” into the back of the laser and attach the vertical mount. Vertical mount gets attached to the handle so the Adjusting Knob lines up with the round indentation on the vertical mount. Place the instrument horizontally on a stable platform (see figure below) or mount it on the tripod with 5/8” - 11 vertical mount threads.
3. Turn the “Adjusting Knob” until the vertical vial bubble is centered.
4. Power on and select the work state that you need by pressing the buttons on the operating panel.
5. Power the instrument off when you finish work and lock the transportation lock.



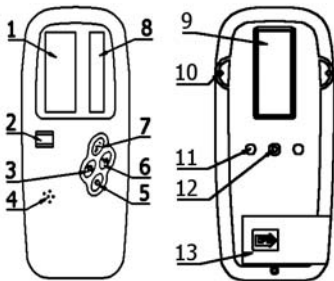
Detector Usage (included in Model No. 40-6530 only)

1. Technical Specifications

Detecting accuracy	Fine	$\pm 0.039''$ ($\pm 1\text{mm}$)
	Coarse	$\pm 0.098''$ ($\pm 2.5\text{mm}$)
Turn-off time		5 minutes
Operating voltage		DC9V
Size		6-3/4" x 3" x 1" (0.266 x 0.118 x 0.029mm)
Weight		0.55 lbs (0.249 Kg)
Dust and rain resistant		
Backlit Screen		
Double sides display		
Horn for beam location		

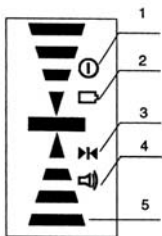
2. Components

(a) Structure



1. Front Display window
2. Level vial
3. Coarse/Fine detection button
4. Horn
5. Power button
6. Horn button
7. Back light button
8. Receiving window
9. Back display window
10. Reference rabbit
11. Bracket position hole
12. Bracket attachment threaded hole
13. Battery-box cap

(b) Display



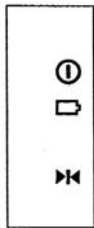
1. Power symbol
2. Low battery symbol
3. Coarse/Fine detection symbol
4. Horn symbol
5. Detecting position symbol

3. Operation Guide

(a) Installation of battery

- Open the battery-box cap
- Put the 9V battery into the battery-box. Please note the polarity. Then close the battery-box cap.

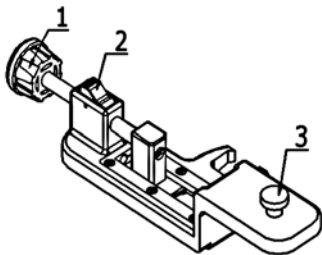
Note: Take the battery out of the detector if it will not be used for a long time.



(b) Turn on/off

- Press the power button. When Power symbol is displayed, the detector is ready for coarse detection.
- When low battery symbol is displayed, change the battery.
- Press the power button again to turn off the detector.

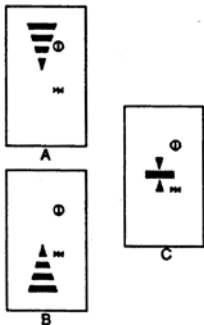
(c) Using the detector bracket



1. clamp bolt
2. quick release button
3. detector/bracket attachment screw

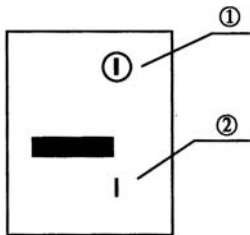
(d) Detection

1. Coarse detection



- Aim the receiving window at the rotating laser instrument. Loosen the clamp bolt and move the detector up and down to receive the laser signals transmitted by the rotating laser.
 - When the detector displays like Fig. (A), move the detector slightly down as indicated by the arrow. When it displays like Fig. (B), move it slightly up as indicated by the arrow.
 - When Fig. (C) is displayed, the detector is level to the laser beam.
- Tighten the clamp bolt and mark the position of the object on the rabbet.

2. Fine detection



1. power symbol
2. fine detection symbol

- Press the coarse/fine detection button. The detector is ready for fine detection.
- Move the instrument up and down like the coarse detection procedure.
- When the instrument displays as shown in the figure, it is level with the laser beam.
- Tighten the clamp bolt and mark the position of the object on the rabbit.

(e) Sound function

- Press the horn button. The horn symbol is displayed and it is ready for the sound function. The detector will then conduct up/down detection through horn signals.
- When the sound signal is a longer beep, move the instrument up.
- When the instrument makes short beep, move it down.
- When the instrument makes a continuous sound, it is level with the laser beam.
- If there is no sound heard, the instrument has not received the laser rotational signal.

(f) Turn-off timer

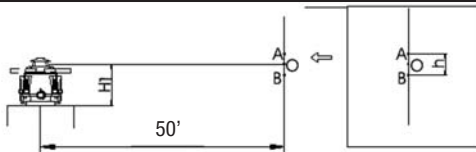
- The detector will automatically turn off if it has not received a laser signal for 5 minutes

(g) Back light system

- There is a back light at the right side of the display window. Press the back light button which will illuminate the display window.

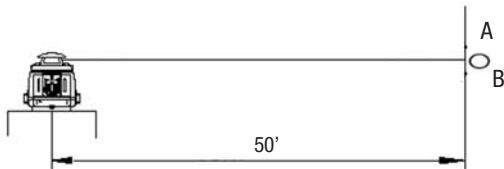
8. Self-Check and Calibration

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



X-Direction Accuracy Self-Check

1. For clarity, we define the direction of handle as X-direction, and another direction as Y-direction
2. Place the unit on a platform that is 50' away from a wall indoors, with the handle facing the wall head-on. Unlock the unit and set to low speed.
3. Mark on the wall where the beam hits the wall and mark that as A. (**Note:** This test should be done indoors with dim lighting. It's critical that the laser mark is easily seen.)
4. Turn the instrument by 180 degrees, mark the beam as point B.
5. Measure the vertical distance between point A and point B. If A & B are more than 1/16" apart at 50', the unit is out of calibration.



6. Turn the instrument by 90° and place it on the platform, with the operating panel facing you. Perform Y-direction self-check with the same method as X-direction self-check, and mark point C and point D by turns.
7. If point C and point D are within 1/16" at 50', the accuracy is within tolerance. Otherwise reference section 12 of this document.

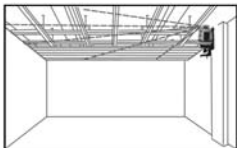
Accuracy Calibration

1. Screw off the adjustment-hole bolt with the cross screwdriver, and adjust the fine-adjustment bolt in the instrument core with a flat head screwdriver until the laser line is within 1/16" at 50'.
2. Check the accuracy of X-direction with the same method as that of Y-direction. If the accuracy is beyond tolerance, make the calibration of X-direction through the adjustment hole with the same method as above.
3. After calibration, rotate the instrument by 90 degrees in turn to make sure that the lines on the wall should be within 1/16" at 50'.
4. Reinstall the adjustment-hole bolt.

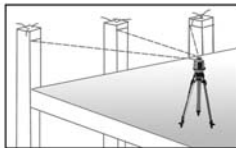
9. Technical Specifications

Laser Wavelength	635nm±10nm
Laser Classification	Class IIIa
Maximum Power Output	≤5mW
Accuracy	±1/8"/100 ft. (±1mm/10m)
Interior Range	Up to 200 ft. (60m) diameter depending upon light conditions
Exterior Range	Up to 2000 ft. (600m) diameter with detector (40-6530)
Self-Leveling Range	±3.5°
Scanning Mode (degrees)	0, 30, 60
Power Supply	4 "C" alkaline batteries (40-6525) Rechargeable battery pack, or 6V adapter (40-6530)
Battery Life	Approx. battery life 20 hours continuous use (rechargeable batteries only) Approx. battery life 30 hours continuous use (alkaline batteries only)
Dimensions	5-3/4" x 7-3/4" x 7-5/8" (146 x 197 x 194mm)
Weight	4.4lbs (2Kg)
Working Temperature	14°F to 113°F (-10°C to +45°C)
Center screw thread	5/8" – 11
Rotation Speed	150-300 rpm
IP Protection Class	56

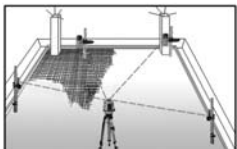
10. Application Demonstrations



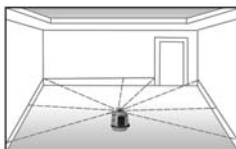
Ceiling Installation



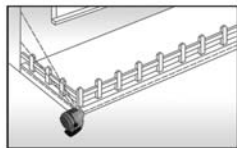
Wall or Footing Construction



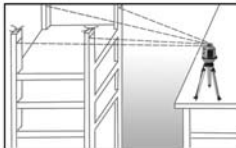
Squaring and leveling



Baseboard Installation



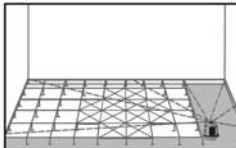
Fence Installation



Cement Floor Installation



Window Installation



Anti-static Flooring
Installation

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 and in the locked position. Failure to lock before transport or storage may cause damage to the units inner mechanism and void warranty.
- 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 one year limited warranty on each 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 us online 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. Required repair/calibration must be done by an authorized AccuLine Pro™ service center or Johnson Level & Tool's limited warranty, if applicable, will be void and there will be NO WARRANTY. Contact our

Customer Service Department to obtain a Return Material Authorization (RMA) number for return to an authorized service center. 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 Department.

In the U.S., contact Johnson Level & Tool's Customer Service Department at 800-563-8553.

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

13. Product Registration

Enclosed with this instruction manual you will find a warranty card to be completed for product warranty registration. Product warranty registration can also be completed online at our web site www.johnsonlevel.com. You will need to locate the serial number for your product that is located on the bottom of the unit. **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 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

AccuLine Pro™ accessories are available for purchase through authorized AccuLine Pro dealers. Use of non-AccuLine Pro 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 800-563-8553.

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