JOHNSON ®

Electronic Self-Leveling Horizontal & Vertical Rotary Laser Kit
Model Nos. 40-6557 & 40-6546

⚠ WARNING:
This product contains one or more chemicals, including lead, known to the State of California to cause cancer and birth defects and other reproductive harm.
Wash hands after handling.

Instruction Manual

Congratulations on your choice of this Electronic Self-Leveling Horizontal & Vertical Rotary Laser kit. We suggest you read this instruction manual thoroughly before using the laser. Save this instruction manual for future use.

This tool emits one rotating laser beam plus one plumb beam and is ideal for laying out indoor or outdoor construction projects.

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.

Table of Contents

1. Kit Contents

Description Model No. 40-6557	Qty.
Electronic Self-Leveling Horizontal & Vertical Red Beam Rotary Laser	1
Detector with Clamp & 9V Battery	1
Tinted Glasses	1
Target	1
Li-ion battery adapter	1
Alkaline battery compartment (batteries not included)	1
Remote Control with 9V Battery	1
Li-ion rechargeable battery pack	1
Instruction Manual with Warranty Card	1
Hard-Shell Carrying Case	1

Description Model No. 40-6546	Qty.
Electronic Self-Leveling Horizontal & Vertical Green Beam Rotary Laser	1
Li-ion rechargeable battery pack	1
Alkaline battery compartment (batteries not included)	1
Li-ion battery adapter	1
Remote Control with 9V Battery	1
Wall/Ceiling Mount	1
Tinted Glasses	1
Target	1
Instruction Manual with Warranty Card	1
Hard-Shell Carrying Case	1

2. Features and Functions

• Large electronic self-level range: The unit works when within ±5°. When beyond the ±5° leveling range, the laser beam flashes, rotation of the beam stops, and an audible alarm activates.
• Vertical and horizontal working modes: electronic self-leveling in both horizontal and vertical mode with one rotating laser beam and one 90º split beam.
• Three rotational speeds: 0, 300 and 800 RPM
• Scan function adjusts the scan size and direction.
• Out-of-level alarm ensures the working accuracy.
• Fine self-calibration function
• In "Tilt Mode" the laser will stop rotating and flash when bumped to ensure work accuracy.
• Slope function allows the user to perform slope in both X & Y axis.
• Dust and rain protection IP 66

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.

Model 40-6557

DANGER!

Class IIIa Laser Product
Max. Power Output: ≤ 5mW
Wavelength: 625-645nm

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

Model 40-6546

DANGER!

Class IIIa Laser Product
Max. Power Output: ≤ 5mW
Wavelength: 522-542nm

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

Model 40-6557

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): _____

Model 40-6546

DANGER

LASER RADIATION AVOID DIRECT EYE EXPOSURE.

MAXIMUM OUTPUT POWER
< 5mW @ 522-542nm

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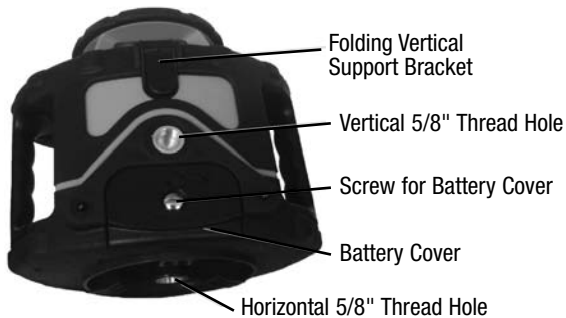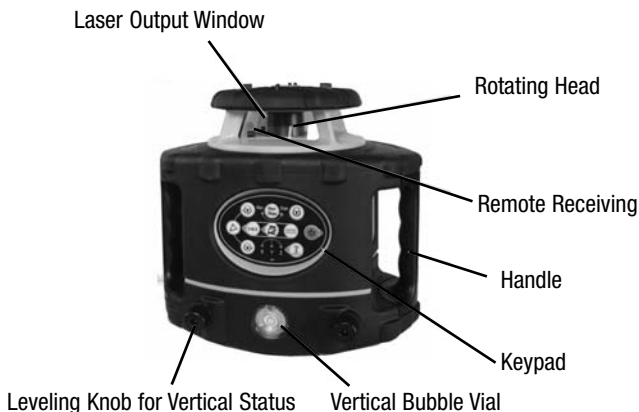REQUIREMENTS OF 21CFR
PARTS 1040.10 & 1040.11.

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

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

Laser radiation is
emitted from this aperture.
AVOID EXPOSURE

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5. Location of Part/Components

Laser Output Window

Rotating Head

Remote Receiving

Handle

Keypad

Leveling Knob for Vertical Status

Vertical Bubble Vial

Folding Vertical Support Bracket

Vertical 5/8" Thread Hole

Screw for Battery Cover

Battery Cover

Horizontal 5/8" Thread Hole

6. Operating Instructions

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

Notes:
• Always check to make sure that the laser is in the off position (when power indicator LED is not lit) before removing and replacing batteries.
• Both Li-ion and "C" alkaline batteries can be used in the unit's battery compartment.

Alkaline Battery Installation

Put 3 "C" alkaline batteries into the alkaline battery pack according to polarity direction, then insert the battery pack into the laser.

Rechargeable Battery Installation

Insert the rechargeable battery into the laser.

Charging the Rechargeable Batteries

Insert the charger into an AC outlet and into the rechargeable battery
 pack, the rechargeable battery is now charging. The charger
 indication light is red when it is charging, and it turns green when
 the battery is full.

 Charger indicator light

Charging directly to rechargeable battery pack

Charging to the laser

Note:

When the power indicator light is flashing on the laser, the battery is
 low. Charge the rechargeable battery every two or three months
 if the laser will be unused for a long period of time.

Laser Usage

1. Put in Li-ion rechargeable battery pack, or 3 "C" alkaline battery
 pack (alkaline batteries not included), or connect the battery
 adapter to the unit's power jack.
2. Place the laser on a platform or tripod, connecting with tripod to
 the 5/8" screw thread at the bottom of the laser.

Note: If the laser is inclined beyond the self-leveling range, the laser will deliver an audible alarm. You will need to re-position the laser inside of its self-leveling range.

3. Press power button on the laser to turn the laser power on, and press operation buttons on control panel or use remote control to adjust to your desired working status. (Note: Remote will not power unit on.)

4. After finishing operation or before moving the laser, turn the power off.

7. Using the Product

Place the unit on a relatively level surface like a tripod, floor, etc during operation.

Operating Panels
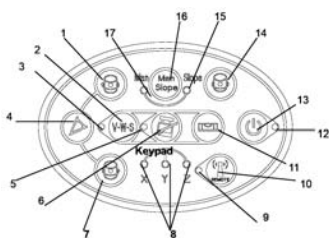
1. Scan/DOT Clockwise Button
2. Vibrate/V-W-S Button
3. Vibrate/V-W-S Button LED
4. Scan Button
5. TILT Mode LED
6. TILT Mode Button
7. Scan/DOT Counterclockwise Button
8. Slope Axis-Direction LED's
9. Remote On/Off LED
10. Remote On/Off Button
11. Reset TILT Mode Button
12. Power LED
13. Power On/Off Button
14. Rotating Speed Button
15. Slope Mode LED
16. Manual/Slope Button
17. Manual Mode LED
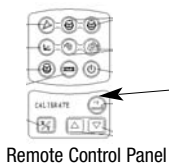
operating panel for calibration (located
beneath the sliding nameplate panel of
the remote control)

Remote Control Panel

LED Functions

Power LED
LED On = power on
LED Off = power off
LED Flashing = low battery

Tilt Mode LED
LED Flashing Slowly = TILT ready mode
LED On = TILT mode is on
LED Flashing Quickly = TILT alarm mode is on and H.I. may have
    changed
LED Off = TILT mode is turned off

Slope Mode LED
LED On = single-axis slope mode is on
LED Off = single-axis slope mode is off

Manual Mode LED
LED On = dual-axis slope mode is on
LED Off = dual-axis slope mode is off

Slope Axis-Direction LED

For X, Y, Z LED's, when one axis is in slope setting status, its corresponding LED will be on

Vibrate/V-W-S LED

LED On = vibrate mode is on
LED Off = vibrate mode is off

Power On/Off

1. Press the power button to power on. The power indicator LED will light up and the laser will automatically level itself, with rotation occurring once the unit is level.
2. Press the power button again to power off.
3. Pressing the red power button on the remote will power down the laser beam and rotating beacon, but does not power off the laser. The power indicator LED will flash twice.

Low Battery Indicator

If the power LED is blinking, it means the battery is low. To ensure operation, replace batteries or charge the rechargeable battery pack.

Alarm If Beyond Range

If the laser is inclined beyond its auto-leveling range of ±5°, it will deliver an audible alarm, rotation will stop and the laser beam will flash. You will need to re-position the laser within its self-leveling range.

Tilt Mode

After turning on the laser, the laser will self-level and begin to rotate. The TILT symbol LED will blink for 30 seconds after the laser begins to rotate. During these 30 seconds if the laser is moved, the laser will stop rotating, re-level and begin to rotate again. After 30 seconds, the TILT symbol LED will stop blinking and will become solid. If the laser is moved when the TILT symbol LED is solid, the laser will stop rotating. The laser beam will blink on and off and the TILT symbol LED will blink quickly alerting the user that the height of instrument (H.I.) may have been changed. Pressing the level vial button 🔲 on the laser keypad or remote will allow the laser to re-level and start rotating again and the TILT mode will repeat. If the laser is operating in manual mode and the TILT button is pressed, the laser will exit manual mode.

Speed Adjustment

After unit electronically self-levels, it rotates at its highest speed (800rpm). Press the speed adjustment button (see figure) on either the laser keypad or remote to change the rotating speed to its low speed (300rpm) and 0rpm.

Note: During the self-leveling sequence, this key is not functional.

Rotating speed 800 rpm → *The first press* 300 rpm → *The second press* 0 rpm
The third press

Scan Mode

1. Press the scan mode button (see figure) on either the laser keypad or remote to activate scan mode and scan angle is 180º.

2. First press - 180º; Second press - 90º; Third press - 45º; Fourth press - 10º; Fifth press - 45º; Sixth press - 90º; Seventh Press - 180º.

3. To return to rotating, press the speed adjustment button.

Rotating the Scan Line

1. Press the clockwise button on either the laser keypad or remote and the scan line moves to the right.

2. Press the counter-clockwise button and the scan line moves to the left.

Vibrate/V-W-S Mode

Push this button once to activate the vibrate mode. Note: If laser is in manual mode, pushing the V-W-S button will exit manual mode. Also the TILT mode will automatically be on and can not be turned off. In this mode, the laser will not react to slight vibration near the laser. To turn the V-W-S mode off, push the button again.

Manual (Man) Slope Mode

1. Press the slope mode button once (see figure) on the laser keypad to enter into the X-direction single slope mode. The X and Slope LED will turn on. This will put the laser into single axis slope mode.

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- Press the button 🕑 on the remote control to choose the slope direction for X or Y direction. Then press 🕞 🕞 on the remote control to adjust the slope value. When the X LED is lit, the X-axis is in slope mode and the Y-axis is in auto-leveling. When the Y LED is lit, the Y-axis is in slope mode and the X-axis is auto-leveling.

2. Press the Man/Slope mode button again to select manual/dual slope mode. The Man LED will turn on.
   - Press the button 🕑 on the remote control to choose the slope direction for X or Y direction. Then press 🕞 🕞 on the remote control to adjust the slope value. When the X LED is lit, the X-axis is in slope mode and the Y-axis is inactive. When the Y LED is lit, the Y-axis is in slope mode and the X-axis is inactive.

3. Another press of the Man/Slope mode button exits the slope mode.
   Note: When laser is in slope mode, Vibrate and TILT mode can be active. When laser is in manual mode, Vibrate and TILT mode is turned off.

4. In vertical mode - using single-axis slope allows the operator to move the vertical laser line 5º to the left and right.

Reset TILT Mode
Press this button on the laser or remote control when the laser been moved in TILT mode to return to self-leveling TILT mode.

Timed Auto-off Function

Turn the unit on using the power button on the instrument keypad. Press the power button once on the remote control. The unit is now in sleep mode. The rotating beacon and laser beam will be powered down.

If the unit is in sleep mode for 30 continuous minutes, the unit turns off automatically. With a second press of the power button on remote control, the unit exits sleep mode and enters self-level mode.

Remote Control Shield Button

The remote control function is on when the laser is turned on and the remote control LED is off. Press this button on the laser keypad and the remote control LED goes on. The laser does not receive a remote control signal.

Using the Laser in the Vertical Mode

Set the laser on a flat surface with the keypad facing up. Flip the folding vertical support bracket to the up position. The rotating laser beam will rotate directly over the cross line on the vertical bracket, which is positioned directly above the metal foot.

Place on Flat Surface

Install the laser on a tripod using the 5/8" vertical thread hole on the side of the laser. The folding support bracket does not need to be flipped to the up position.

Place on Tripod
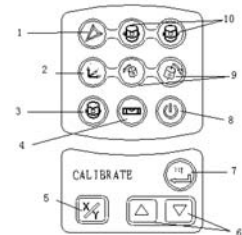
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When the laser is vertical, adjust the vertical reference beam over the vertical support bracket by adjusting the vertical leveling knobs to center the bubble vial.

Adjust the vertical leveling knob to center the bubble vial.

Remote Keypad

1. Scan Function Mode Button
2. Slope Axis Direction Selection Button
3. Rotating Speed Button
4. TILT Reset Button
5. Self-Calibration Axis Selection Button
6. Self-Calibration Adjustment Button
7. Self-Calibration Confirmation Button
8. Sleep Mode Button
9. Slope Adjustment Buttons
10. Scan Clockwise/Counterclockwise Buttons

Notes:
1. The rotating speed button, scan button and scan clockwise/ counterclockwise button on the remote control are the same as the buttons on the laser.
2. When the laser is in the Man/Slope mode, press the slope adjust- ment button on the remote control to adjust the inclined angle of laser plane (or laser line).

Detector Usage

Two-Sided Laser Detector with Clamp Model No. 40-6715

The 40-6715 laser detector is an indispensable accessory when using rotary laser levels. The main function of the detector is to detect the position of the laser signals that are transmitted by rotary lasers. This detection quickly and precisely provides the user with the horizontal and vertical references.

This product features high sensitivity, a double-faced display, low power consumption, good reliability and easy manipulation. It can be used with most types of rotating lasers.

1. Technical Specifications

|	
Detecting accuracy:	Fine: ±0.039" (±1mm)
	Coarse 1: ±0.098" (±2.5mm)
	Coarse 2: ±0.394" (±10mm)
Automatic Shut-off:	6 minutes ±1 minute
Power Supply:	9V battery, 30 hrs continuous use
	(with LCD illumination off)
Sound indicator:	slow short beep, rapid short beep
	and continuous sound
LED display:	down arrow, up arrow, horizontal
	on grade bar
Dimensions:	6.30" x 3.35" x 1.10" (160 x 85 x 28mm)
Weight:	1 lb. (0.45kg)
Others:	Rain and dust resistant

2. Components

(a) Exterior Instruction
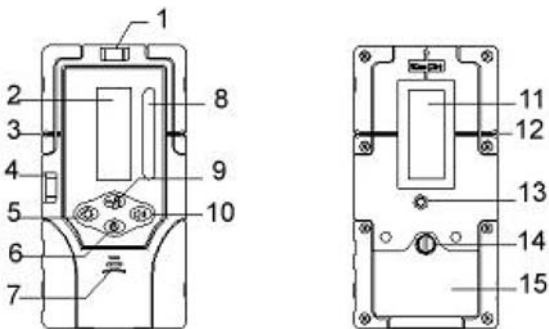
1) Horizontal vial
2) Front display window
3) Front on grade mark
4) Vertical vial
5) LED key
6) Power key
7) Beeper
8) Reception window
9) Fine/Coarse accuracy key
10) Beeper key
11) Back display window
12) Back on grade mark
13) Bracket screw thread
14) Battery cover screw
15) Battery cover

(b) Display
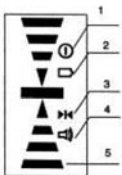
1. Power on symbol
2. Low battery indicator
3. Fine/Coarse symbol
4. Beeper symbol
5. Position indication arrows

Power Key: Turn on/off the power

Fine/Coarse Accuracy Key: Switch detecting accuracy

LED Key: Turn on/off the LCD's light

Volume Key: Cycles between high, low and off

3. Operation Guide

(a) Battery Installation

Figure 1

• Open the battery cover door by turning the battery cover screw counter-clockwise.
   Put the battery into the battery case noting the polarity shown in the battery compartment.
• Put the battery cover door back, and tighten the screw.

Note: 1) Remove the battery when the unit is being stored for a long time.
   2) When the low battery indicator is displayed, change the battery soon.

4. Operating Instructions

Power On

Press the power key to turn the unit on. The LCD display will illuminate all the indicator segments for 0.5 second (Fig.2). When the indicator segments are no longer illuminated, the detector is ready for use.

Figure 2   Figure 3

Note: The LCD display will still have the power, detection and sound indicators illuminated (Fig. 3).

Fine/Coarse accuracy key

Power on and press the fine/coarse accuracy key, the unit will cycle between three accuracy options: fine, coarse 1, coarse 2. The

Fine   Coarse 1   Coarse 2

accuracy symbol displayed on the LCD will change.

Volume Key

Power on and press the volume key, the unit will cycle between a high sound, low sound and mute.

High sound   Low sound   Mute

The sound symbol displayed on the LCD will change accordingly.

Note: There will be two beeps when turning the unit on and off. There will be one beep when changing functions.


Detecting Laser Level Signals

While detecting laser signals, the LCD will display as follows: (take the set-up state of high sound and fine detection as an example)

Laser signal	Laser signal	Laser signal	
The laser signal is down	The laser signal is up	Horizontal bar indicated on-grade	No laser signal is detected
Sound: rapid short beeps	Sound: slow short beeps	Sound: continuous sound	Sound: no sound

When the laser signal is near the on-grade mark, the displayed up and down arrows will decrease as the distance to the on-grade mark decreases.

Laser signal	Laser signal	Laser signal	Laser signal
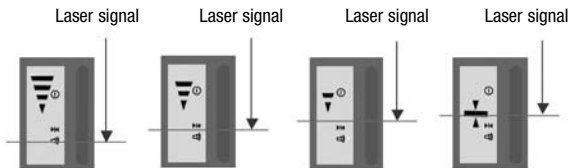
1. 1. When detecting a horizontal laser signal, it is important to have the horizontal bubble vial centered, as the deflection of the receiver will influence its receiving accuracy.

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2. When detecting a vertical laser signal, it is important to have the vertical bubble vial centered, as the deflection of the receive will influence its receiving accuracy.

3. Keep the reception window facing the laser while detecting.

4. Hold the unit stable while detecting.

LED Function
Power on and press the LED key, the LCD will now be backlit.

Automatic Shut-off Function
When the unit does not receive a laser signal for 6 minutes, the unit will power off automatically.

Low Battery Display Function
When the battery sign blinks on the LCD, the battery is low and needs to be replaced. If the battery is very low, the unit will power off automatically. Replace the battery.

Rod Clamp

Connecting to the rod clamp.

Connecting to the grade rod.

5. Detector Maintenance

• Keep the unit, particularly the reception window, clean. If it does get dirty, use a cloth to wipe it clean.

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8. Self-Check & Fine Calibration

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

It is recommended that the laser must be self-checked before operation. If the accuracy is found beyond tolerance, the user can make fine adjustments according to the directions as follows.

X & Y Direction Accuracy Self-Check

1. Note the X & Y direction on top of the laser.
2. Place the unit on a platform or tripod that is 10' away from one wall and 50' away from another wall indoors, with the X direction facing the wall head-on. Turn the unit on.
3. Mark on the wall where the beam hits the short shot (10') and mark it X= and the long shot (50') and mark it X-.
4. Turn the instrument 180° being careful not to change the HI (height of the instrument). Mark on the wall short shot X- and long shot X=.
5. Measure the vertical distance between X= and X- at the long shot. If X= and X- are more than 1/16" apart at 50', the unit is out of calibration. Note: If there is a vertical difference at the short shot, the HI was changed when the laser was rotated 180°.
6. Turn the instrument by 90° and place it on the platform, with the Y-direction facing the wall. Perform Y-direction self-check with the same method as X-direction self-check, and mark point Y- and point Y= by turns.

10'   50'
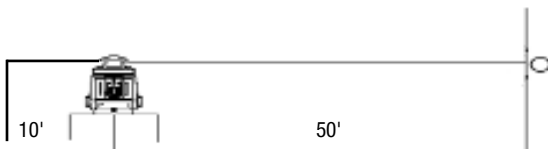
7. If point Y- and Y= are within 1/16" at 50', the accuracy is within tolerance.

Fine Calibration Using the Remote Control
The following procedure is only valid when adjusting out errors that are less than 1/2" over 100 ft. Errors larger than 1/2" at 100 ft. must be done by a qualified technician. Reference section 12 for further information.

1. Access calibration mode by simultaneously pressing the power ⏻ button and the Man/Slope 🔘 button.

2. While continuing to hold the TILT button, release the power button until the X and Y LED's blink three times, then release the TILT button.

   • Note, the head of the laser is rotating and the X axis LED is flashing. The unit is now in calibration mode and all other operations will be performed with the unit's remote control.

3. Slide down the lower cover of the remote control to access the operation panel for the calibration. Multiple presses of the X/Y button toggles calibration control between X axis and Y axis (as indicated via the X and Y LED's located on the laser keypad).

       • Once the desired axes have been selected, the UP arrow
        and DOWN arrow buttons are used to adjust the position of
        the laser plane.

X-Axis Calibration

1. Place the unit into calibration mode as discussed above.

2. Position the unit so that the X axis is directed to the two walls.

3. Press the X/Y ⬚ button on the remote control to toggle
   calibration control to the X axis.

4. Press UP arrow and DOWN arrow buttons, conversely to adjust
   the laser height to coincide with the zero position of the target.
   The zero position is half way between X= and X- at the long shot.

5. Press the ENTER button on the remote control to accept the
   calibration value, noting that the X LED goes "OFF".

6. After calibration is completed, make sure to power off the unit
   and then power on again to activate the calibration.

Y-Axis Calibration

1. Place the unit into calibration mode as discussed above.

2. Position the unit so that the X axis is directed to the two walls.

3. Press the X/Y ⬚ button on the remote control to toggle
   calibration control to the Y axis.

4. Press UP arrow and DOWN arrow buttons, conversely to adjust
   the laser height to coincide with the zero position of the target.
   The zero position is half way between Y= and Y- at the long shot.

5. Press the ENTER button on the remote control to accept the calibration value, noting that the Y LED goes "OFF".

6. After calibration is completed, make sure to power off the unit and then power on again to activate the calibration.

Z-Axis Check/Calibration

1. Place the unit on a level surface with the Y direction facing the far target.

2. Mark the wall where the laser hits.

3. Turn the laser "OFF" then "ON" again.

4. Place the unit so the Z axis is facing the far target.

5. Measure the difference between the line and the dot.

6. It should be between 3 3/8" and 3-1/2". If it is less the 3 3/8" or greater than 3 1/2", place unit in calibration mode.

7. Press UP arrow and DOWN arrow buttons conversely to adjust the laser height to coincide with the zero position of the target.

8. Press the ENTER button on the remote control to accept the calibration value, noting that the Y LED goes "OFF".

9. After calibration is completed, make sure to power off the unit and then power on again to activate the calibration.

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9. Technical Specifications

|	
Laser Wavelength	635nm±10nm (Model 40-6557)
	532nm±10nm (Model 40-6546)
Laser Classification	Class IIIa
Maximum Power Output	≤5mW
Accuracy	±1/16"/100 ft. (±1.5mm/30m)
Interior Range	Up to 200 ft. (60m) diameter depending upon light conditions (Model 40-6557)
	Up to 400 ft. (120m) diameter depending upon light conditions (Model 40-6546)
Exterior Range	Up to 2000 ft. (610m) diameter with red detector (included in Model 40-6557)
	Up to 1400 ft. (427m) diameter with green detector (not included in Model 40-6546)
Remote Range	Up to 200 ft. (60m) diameter with remote
Slope	±5°
Auto-Leveling Range	±5°

|	
Power Supply	Li-ion rechargeable battery pack or adapter (included); 3 "C" alkaline batteries (not included)
Battery Life	Approx. 25 hours with Li-ion rechargeable battery pack (included); 16 hours with alkaline batteries (not included)
Dimensions	8.62" x 6.30" x 7.95" (219mm x 160mm x 202mm)
Weight	5.47 lbs (2.4Kg)
Working Temperature	14°F to 113°F (-10°C to +45°C) (Model 40-6557) 32°F to 104°F (0°C to +40°C) (Model 40-6546)
Center Screw Thread	5/8" – 11
Rotation Speeds	0, 300 and 800 RPM
Laser Beam Modes	0º, 10º, 45º, 90º, 180º
IP Protection Class	66

10. Application Demonstrations
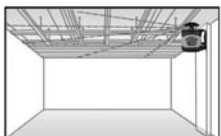
Plumb reference for ceiling installation
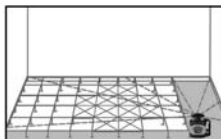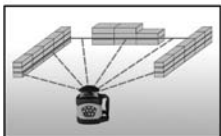

Reference for flooring installation

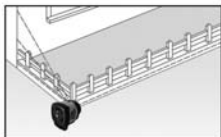Reference for window installation
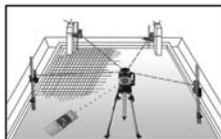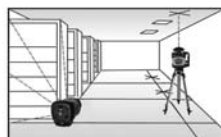

Reference for squaring and leveling

Reference for retaining wall installation

Reference for cement floor installation

Reference for fence

Reference for trim installation and locating ceiling fixtures

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 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 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.

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

15. Trouble Shooting

• If the unit does not turn on or turns off after a short time, clean the battery terminals. Alkaline: Check the battery polarity or install new alkaline batteries. Rechargeable: Attempt to recondition the batteries by charging for 12-14 hours, unplug the unit and then turn the unit on until battery runs out. Repeat this process 2-3 times.

• If the laser will not spin, check to see if the TILT light and laser are flashing. Press the TILT button on the unit or the remote to exit the "tilt" mode and enter into the auto level status. Clean the battery terminals. Alkaline: Check the battery polarity or install new alkaline batteries. Rechargeable: Attempt to recondition the batteries by charging for 12-14 hours, unplug the unit and then turn the unit on until battery runs out. Repeat this process 2-3 times.

• If the laser does not illuminate, clean the battery terminals. Alkaline: Check the battery polarity or install new alkaline batteries. Rechargeable: Attempt to recondition the batteries by charging for 12-14 hours, unplug the unit and then turn the unit on until battery runs out. Repeat this process 2-3 times.

• If the unit is out of calibration less than 1/8" at 50', follow calibration procedure in manual.

• If the unit is out of calibration more than 1/8" at 50', contact an authorized Johnson service center or Johnson Level & Tool's customer service department.

• If the unit will not take a charge, does the battery charger LED light change to red as soon as it is plugged in? If no, it is most likely an issue with the charger. If the unit is within the warranty period, contact Johnson Level & Tool's customer service department to request a replacement charger under warranty. If the unit is not within the warranty period, go to www.johnsonlevel.com to purchase a new charger. If yes, contact an authorized Johnson service center or Johnson Level & Tool's customer service department.

• If the unit will not calibrate, contact an authorized Johnson service center or Johnson Level & Tool's customer service department.

• If the unit beeps and/or flashes constantly, check to see if the unit is being tilted to angles beyond the self-leveling range. If the unit is being used for a level application, place onto a surface that is within the self-leveling range. If it is still beeping and/or flashing, the unit is out of calibration.

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