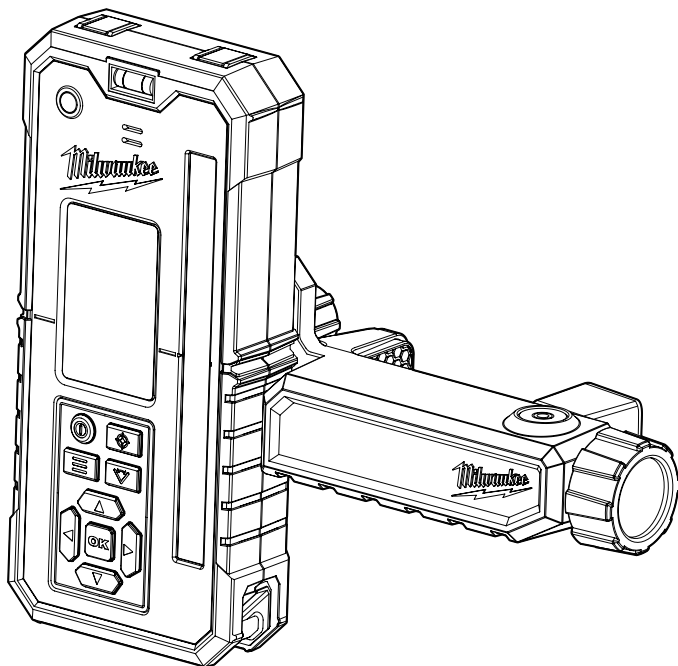




OPERATOR'S MANUAL
MANUEL de L'UTILISATEUR
MANUAL del OPERADOR



Cat. No. / No de cat.
3712

**GREEN INTERIOR ROTARY LASER REMOTE CONTROL
& RECEIVER**

**RÉCEPTEUR ET TÉLÉCOMMANDE DE LASER
ROTATIF INTÉRIEUR VERT**

**RECEPTOR Y CONTROL REMOTO DE LÁSER
GIRATORIO INTERIOR VERDE**



WARNING To reduce the risk of injury, user must read and understand operator's manual.

AVERTISSEMENT Afin de réduire le risque de blessures, l'utilisateur doit lire et bien comprendre le manuel.

ADVERTENCIA Para reducir el riesgo de lesiones, el usuario debe leer y entender el manual.

GENERAL POWER TOOL SAFETY WARNINGS

⚠WARNING Read and understand all instructions. Failure to follow all instructions listed below, may result in electric shock, fire and/or serious personal injury. **Save all warnings and instructions for future reference.**

• **Save these instructions** - This operator's manual contains important safety and operating instructions.

WORK AREA SAFETY

• **Ensure adequate safeguards at the work site** (e.g., surveying site when measuring on roads, construction sites, etc.).

• **Avoid dangerous environments.** Avoid extended exposure to rain, snow, damp or wet locations. Do not use in the presence of explosive atmospheres (gaseous fumes, dust or flammable materials).

PERSONAL SAFETY

• **Do not allow persons unfamiliar with the tool, these safety instructions, and the tool's operator's manual to operate the tool.** This tool can be dangerous in the hands of untrained users.

• **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the tool in unexpected situations.

BATTERY USE AND CARE

• **This tool is designed to be powered by 2-AA batteries properly inserted into the tool.** Do not attempt to use with any other voltage or power supply.

• **Do not leave batteries within the reach of children.**

• **Do not mix new and used batteries. Do not mix brands (or types within brands) of batteries.**

• **Do not mix rechargeable and non-rechargeable batteries.**

• **Install batteries according to polarity (+ / -) diagrams.**

• **Properly dispose of used batteries immediately.**

• **Do not incinerate or dismantle batteries.**

• **Under abusive conditions, liquid may be ejected from the battery, avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help.** Liquid ejected from the battery may cause irritation or burns.

SPECIFIC SAFETY RULES FOR ROTARY LASER RECEIVER

• **The device conforms to the most stringent requirements of the relevant Electromagnetic Compatibility (EMC) Standards and Regulations.** Yet, the possibility of causing interference in other devices cannot be totally excluded.

• **⚠CAUTION** Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

• **Be sure to power off instrument after use.** When instrument will not be used for a long period, place it in storage after removing batteries.

• **Watch out for erroneous results if the tool is defective or if it has been dropped, misused or modified.**

• **Do not dispose of tool or batteries together with household waste material!** Tool and batteries that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.

• **Ensure tool magnets are securely mounted to a metal surface. Magnet strength may not hold on thin metal surfaces, causing the tool to fall.**

• **⚠WARNING** To reduce the risk of injury, when working in dusty situations, wear appropriate respiratory protection or use an OSHA compliant dust extraction solution.

• **Always use common sense and be cautious when using tools.** It is not possible to anticipate every situation that could result in a dangerous outcome. Do not use this tool if you do not understand these operating instructions or you feel the work is beyond your capability; contact Milwaukee Tool or a trained professional for additional information or training.

• **Maintain labels and nameplates.** These carry important information. If unreadable or missing, contact a MILWAUKEE service facility for a free replacement.

FC **Federal Communications Commission**
⚠WARNING Changes or modifications to

this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Consult the dealer or an experienced radio/TV technician for help.

FUNCTIONAL DESCRIPTION

CAT. NO. 3712

SER. _____

3 V== AAx2 LR6/15A

Contains FCC ID: SQGBL654 Contains IC: 3147A-BL654

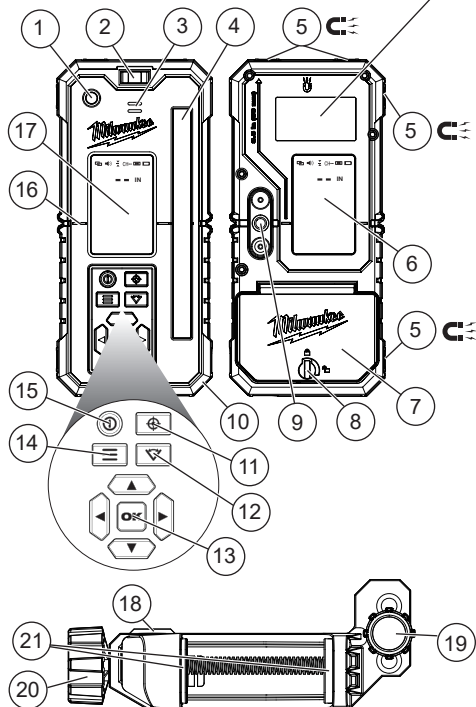
Milwaukee®

**GREEN INTERIOR ROTARY LASER
REMOTE CONTROL & RECEIVER**

Milwaukee Tool, Brookfield, WI 53005 USA

This device complies with part 15 of the FCC Rules.
Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received,
including interference that may cause undesired operation.



- | | |
|--------------------------------|---------------------------|
| 1. Laser locator indicator LED | 11. Center find button |
| 2. Bubble level | 12. Sweep button |
| 3. Speaker | 13. D-pad |
| 4. Sensor | 14. Main menu button |
| 5. Magnets (4) | 15. Power button |
| 6. Back LCD screen | 16. Center line |
| 7. Battery door | 17. Front LCD screen |
| 8. Battery door turn lock | 18. Surface vial |
| 9. Clamp connection feature | 19. Clamp attachment knob |
| 10. Wrist strap attachment | 20. Clamping knob |
| | 21. Clamp jaws |

SYMBOLGY



Volts



Direct Current



Magnets



Read Operator's Manual



Power Button



Center Find Button



Menu Button



Sweep Button



D-Pad

SPECIFICATIONS

Cat. No.	3712
Volts.....	3 V (2xAA) LR6/15A
Module/FCC ID.....	BL654/SQGBL654
Reception Angle.....	70°
Wavelength Compatibility.....	510 - 530 nm
Detection Range.....	15' up to 500'
Receiving Area.....	±2.4"
Volume.....	≥95 dBA
Altitude.....	<6560'
Pollution Degree.....	2°
Ingress Protection.....	IP67
Drop Rating.....	2 m
Bare Tool Weight.....	0.9 lbs
Weight.....	(Without batteries) 1 lbs (With 2xAA batteries)
Center Indication (From top).....	3.5"
Auto Shut-off.....	15 min (No button press or laser detection)
Run Time.....	26 hrs
Remote Control Range.....	400' (Clear line of site with no obstructions)
Clamp Weight.....	0.4 lbs
Clamp Width.....	2.5"
Maximum Relative Humidity (RH).....	80% for up to 88°F
Decreasing Linearly Relative Humidity (RH) ...	50% at 104°F
Recommended Ambient Storage Temperature.....	-13°F to 140°F
Operating Temperature.....	-4°F to 122°F
Recommended Compatible	
Laser Cat. No.	3702-20
NOTE: Distance, laser power, and other environmental factors such as temperature, precipitation, or ambient light conditions may negatively impact product accuracy and range.	

ASSEMBLY

Attaching the Clamp

The clamp is an optional piece that can be attached to the Remote/Receiver. The clamp can be used with grade rods, and pieces of lumber up to 2.5" thick.

1. To **attach** the clamp to the receiver, align the attachment posts on the clamp with the clamp connection feature on the back of the receiver.
2. Align the screw on the back, and turn the knob clockwise to tighten into place.
3. Attach the clamp to the workpiece by turning the clamping knob counterclockwise to open the clamping jaws. To tighten the clamp to the workpiece, turn the clamping knob clockwise. Ensure the clamp is snug before operation.
4. To **remove** the clamp from the workpiece, turn the clamping knob counterclockwise until the clamp jaws release from the workpiece. To remove the clamp from the receiver, turn the clamping attachment knob counterclockwise and remove the clamp from the back of the receiver.

Changing the Batteries

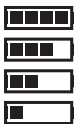
Only use alkaline batteries. Do not use zinc-carbon batteries. If the receiver will not be used for a long time, remove the batteries to protect against corrosion. Change batteries when the fuel gauge shows low batteries.

To change the batteries:

1. To **open** the battery door, turn the latch clockwise to the unlocked position and then open the door.
2. Remove the old AA batteries, and dispose of them properly.
3. Insert two AA batteries according to the +/- polarity marked in the compartment.
4. To **close** the battery door, close the door and then turn the latch counterclockwise to the locked position.

Fuel Gauge

To determine the amount of charge left in the batteries, turn the tool ON. The display will show the battery charge: Full, 3/4, 1/2 and low battery warning. Battery life may vary by brand/age. Replace the batteries as soon as possible.



OPERATION

⚠ WARNING To reduce the risk of injury or temporary effects on vision, do not look directly into the laser when it is on.

⚠ CAUTION Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

NOTICE Perform the Accuracy Field Check procedure immediately upon unboxing of each new Remote/Receiver and before exposure to jobsite conditions. See "Accuracy Field Check" for information. Should any deviation from listed product accuracy be found, please contact a MILWAUKEE service facility. Failure to do so could result in rejection of warranty claim.

Turning the Remote/Receiver ON/OFF

1. To turn **ON**, press the Power button until the laser Remote/Receiver beeps. The icons and LED will flash for 1 second, then return to the home screen.
NOTE: On initial startup, use the up/down arrows to select the desired language, then press OK to confirm. The backlight will illuminate after any button press or when a laser beam is detecting on the sensor. The backlight will stay on for 15 seconds. The timer will reset every time a button is pressed or when a laser is sensed for the first time (i.e. it won't stay on if a laser stays on the sensor, but if a laser moves off then back on, the timer will reset).
2. To turn **OFF**, long press the power button for more than 1 second. Auto shut-off will occur if there are no button presses and no laser beam detected for 15 minutes.

NOTE: The laser and Remote/Receiver are independent of one another. A power button press on the Remote/Receiver will power off the Remote/Receiver, and the laser will remain on.

Center Find

Center Find feature is only compatible with certain RPM's and accuracy settings and is not compatible with Channel Link. Some settings may automatically change when this function is being used. Press the OK button to clear any setting change notification of the Remote/Receiver.

1. Place the paired Remote/Receiver in the desired location.
NOTE: The Remote/Receiver must be aligned with the Y axis of the rotary laser. For best results, use the iron sight on top of the laser to align directly with the Remote/Receiver sensor.
2. Press the Center Find button on the Remote/Receiver or navigate the Center Find icon in the main menu and press the OK button. The laser will begin to slope in the Y axis searching for the Remote/Receiver.
3. Once the laser detects the Remote/Receiver, the Remote/Receiver will show "center found" at the top of the screen.

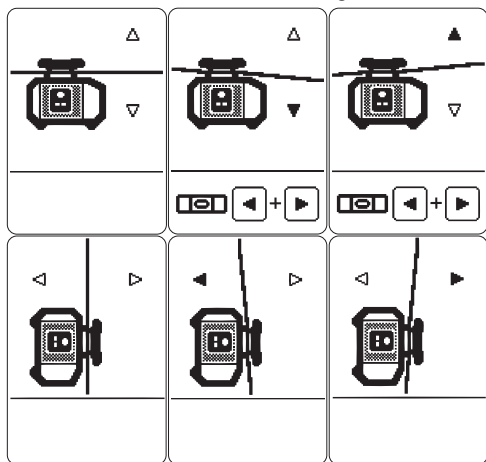
NOTE: If the center is not found, the Remote/Receiver will display "not found". Press the OK button, and the Remote/Receiver will go to the main menu, and the laser will start the self-leveling procedure. Select the Center Find icon from the menu, and try steps 1 - 3 again until the center is found.

Alignment

Alignment mode can be used with the laser in Horizontal Orientation (to slope), or Vertical mode (to align). The Laser can only slope in the Y Axis.

1. Select the Alignment icon from the main menu.
2. When in Horizontal mode, press the up/down arrow keys to slope. When in Vertical Orientation, press the left/right arrow buttons to align. Press and hold the arrow button to slope/align at a faster rate.
3. Press the OK button to confirm the current slope selection.
4. After the laser is sloped (in Horizontal Orientation only), the left and right arrow buttons can be pressed simultaneously to exit Alignment and re-level the laser plane.

NOTE: The Laser Locator Indicator LEDs and audible sounds will function during alignment if the user wishes to use them to align the laser with the center of the Remote/Receiver while in Alignment Mode.



Mask

The Mask function can be used to turn off the laser in certain quadrants to prevent interference with other Remote/Receivers on the jobsite.

1. Select the Mask icon from the main menu and press the OK button. Four quadrants will appear on the screen.
2. Press the up, down, left, or right arrow buttons to select the desired quadrants to be masked. Masks will be applied in real time to the laser.
3. To unselect a mask, press the arrow button in the direction needed to unmask.
4. Press the OK button when mask selection is complete.

NOTE: Up to 3 adjacent quadrants can be selected at a time. If a fourth or non-adjacent quadrant is masked, the selected quadrant will become masked. All other previously masked sections will become unmasked to resolve the conflict.

Sweep

1. Press the Sweep button or select the sweep icon in the main menu.
2. Press the up arrow button to select which degree of sweep is needed; 0°, 10°, 45°, and 90°. Use the left and right arrow buttons to rotate the laser beam

counterclockwise or clockwise if needed. Single press the arrow button to move 1 step, or press and hold the arrow button to move at a faster rate.

3. Use the down arrow button to snap the sweep direction to the next quadrant. Press again to proceed to next quadrant. And so on.
4. Press the OK button to confirm the selection. The Remote/Receiver will return to the main menu.

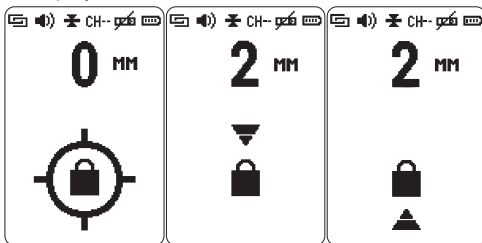
Rotational Mode

1. Select the RPM icon from the main menu and press the OK button. Three RPM options will appear: 300, 600 (default), and 1200.
NOTE: Slower RPM's are more visible, while faster RPM's will yield a more continuous looking line that is better for detection reaction time.
2. Press the up and down arrow buttons to select the RPM as needed.
3. Press the OK button, and the RPM will change according to the RPM selected.

Center Lock

Center Lock is only compatible with certain RPM's and accuracy settings and is not compatible with Channel Link. Some settings may automatically change when this function is being used. Press the OK button to clear any setting change notification of the Remote/Receiver.

1. Place the paired Remote/Receiver in the desired location.
NOTE: The Remote/Receiver must be aligned with the Y axis of the rotary laser. For best results, use the iron sight on top of the laser to align directly with the Remote/Receiver sensor.
2. To **LOCK**, select the Center Lock icon from the main menu and press the OK button. The laser will begin to slope in the Y axis searching for the Remote/Receiver.
3. If the center is found, the Remote/Receiver will display "Center Locked".



4. Once the center is locked, the laser will continue to adjust it's slope to remain on the center of the Remote/Receiver. If the Remote/Receiver is ever blocked or moved such that the laser beam is no longer on the sensor, this operation will fail and a "not found" warning will be displayed.

NOTE: If Center Lock is not found, the Remote/Receiver will display "not found". Press the OK button, and the remote/receiver will go to the main menu, and the laser will start the self-leveling sequence. Select the Center Lock icon from the menu, and try steps 1 - 3 again until Center Lock is found.

5. To **UNLOCK**, select the Center Lock icon from the main menu, and press the OK button. Hold the left arrow and right arrow buttons simultaneously, the Center Lock Function will be aborted and the laser will begin the auto-level sequence.

Using Sleep Mode

Sleep Mode can be used to conserve the rotary laser battery without disturbing laser setup.

1. To **ENTER** Sleep Mode, select the Sleep icon from the main menu.
2. Press the OK button, this will send the laser to "sleep" mode.

NOTE: The laser head will stop rotating and the laser diode will turn off. The laser will retain its current position and settings and will resume when Sleep Mode is exited. If the laser is asleep for more than 4 hours, the laser will automatically shut off.

3. To **EXIT** Sleep Mode, press the OK button to "wake" the laser. The laser will "wake", and function with the same settings. If the Remote/Receiver is powered off, it will re-pair to the laser when powered on, and the sleep menu will re-open with the option to "wake" with the press of the OK button.

Adjusting the Volume

- Select the Volume icon from the main menu, and press the OK button.
- Use the up/down arrows to toggle between high (>95 dBA), low (72 - 90 dBA), and off. When toggling, a sample tone will play to demonstrate the currently selected setting. Press OK to confirm selection. The icon on the status bar will update to show the current selection.

Setting the Units of Measure

1. Select the Units icon from the main menu, and press the OK button.
2. Choose from the measurement options of; millimeters, inches (decimal), inches (fractions), and feet using the arrow buttons.
3. Press the OK button, and the measurement setting will reflect in the main menu and will update in the Direct Read Out.

Setting Accuracy

- Select the Accuracy icon in the main menu and press the OK button. Use the up/down arrows to toggle between tolerance levels: ultra-fine, fine, medium, coarse, and ultra-coarse. The icon on the display will update to show current selection. See the table below for receiver deadband accuracy based on unit and accuracy settings.

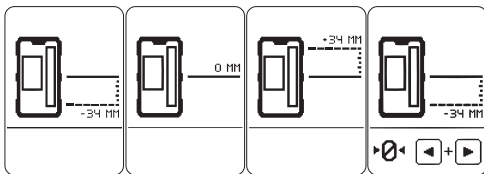
Remote/Receiver Accuracy				
mm	in. (Dec.)	in. (Frac.)	ft.	Levels
0.5	0.02	1/32	0.001	Level 1
1	0.04	1/16	0.003	Level 2
2	0.08	1/8	0.006	Level 3
3	0.12	1/4	0.010	Level 4
5	0.2	1/2	0.016	Level 5

Accuracy Levels
(1= Ultra-Fine -
5= Ultra-Coarse)

Using the Offset Mode

1. Select the offset icon from the main menu.
2. Press the OK button to continue.
3. Ensure the laser beam is in front of the Remote/Receiver.
4. The Remote/Receiver will display the offset distance based on the current sensing location of the beam on the sensor.
5. Press the OK button to confirm the setting. The Direct Read Out, arrow indications and LED indicator will now work to direct the laser to the new center location.
6. To reset the offset menu, re-enter the offset menu and hold the left and right arrow buttons simultaneously and the offset will be reset back to 0.

NOTE: Offset is not compatible with Center Lock or Center Find. Initiating these functions will reset offset to 0.



Pairing the Remote/Receiver with the Rotary Laser

It is recommended to use the corresponding laser stated in the "specifications" section.

1. Ensure both the laser and remote/receiver are completely turned off.
2. To turn **ON** the remote/receiver, press the power button.
3. To turn **ON** the laser, press the power button.
4. Ensure auto-leveling is complete before pairing the remote/receiver to the laser. The Leveling LED will be solid green and the laser head will start to rotate.
5. To **PAIR** the remote/receiver with the laser, select the pairing icon in the main menu of the remote/receiver, then press and hold the pairing button on the laser. The Pair Indicator LED will flash white while the tool searches for the remote/receiver. When the device connection is successful, an audible tone will sound, and the Pair Indicator LED will remain solid white.

NOTE: Only 1 laser and 1 remote/receiver can be paired at a time to the laser. If the connection fails after 30 seconds, the Pair Indicator LED will stop flashing, and the tool will beep multiple times to indicate a failure. The operation will need to be repeated.

Selecting Languages

On initial startup, use the up/down arrows keys to select the desired language, then press the OK button to confirm. To change to a different language, go to the language icon located in the main menu, and press the OK button. Select the desired language, and press the OK button again.

Using the Information Screen

The information screen is useful for tracking operating hours, drop events detected, and temperature events detected.

1. Select the information icon from the main menu.
2. Press the OK button to continue.
3. Event log can be reset for tracking purposes by pressing the left and right arrow buttons simultaneously when in the information menu.

Using Channel Link

Channel Link can be used to eliminate interruptions from other lasers on a busy jobsite, by distinguishing and detecting the preferred laser. The Remote/Receiver cannot distinguish between two lasers at the same time. Be sure that only one laser is striking the Remote/Receiver sensor at a time.

1. Select the Channel Link icon from the main menu, and press the OK button. Selecting a channel will update the Remote/Receiver setting as well as update the setting on any paired laser.

2. Use the up/down arrows to select the desired channel, then Press the OK button to confirm.

NOTE: A Remote/Receiver in "CH --" will detect lasers in any channel. While the Remote/Receiver is in CH 1,2,3 it will only detect lasers in matching Channels. Select a unique channel to distinguish the laser from others on the jobsite or select "CH--" to detect any green rotary MILWAUKEE rotary laser on the same jobsite.

3. To detect all lasers, return to the channel menu and select "CH--".

NOTE: Channel Link is only compatible with certain RPM's and functions. Some settings may automatically change when this function is used. Press the OK button to clear any setting change notification of the Remote/Receiver.

Laser Calibration

User calibration of the laser can be conducted with the use of a paired Remote/Receiver. At any time during calibration, press the menu button to abort the calibration, and exit without saving the settings.

Recalibrating the Horizontal (X/Y) axis:

1. Select the calibration icon from the main menu, and press the OK button.

2. Place the laser on a stable surface (such as a MILWAUKEE Rotary Laser Tripod) in the horizontal position. After pressing the OK button, the calibration record, including the laser field calibration, laser service calibration, and next suggested calibration is displayed. MILWAUKEE suggests that the tool should be professionally calibrated once per year or after any serious drop event. Between professional servicing, field calibration can be completed for minor adjustments in performance. Press the OK button to begin the field calibration procedure.

3. Enter the current date of the recalibration using the up and down arrows and press the OK button to begin calibration.

4. Select "X/Y" axis for recalibration and press the OK button.

5. Select the desired calibration accuracy. Note that longer distances are required for more precise calibration. Press the OK button to continue. The screen will change to show "-X" as the first axis of calibration. Press OK to continue. Separate the laser and Remote/Receiver in the "-X" axis by the distance indicated. Then press OK to continue.

6. Ensure the Laser is projecting on the sensor. Once the OK button becomes active, press the OK button to continue. Ensure the Remote/Receiver is secure on a stable and level surface.

7. Return to the laser. Using the iron sights, adjust the laser so that it's aimed perfectly at the Remote/Receiver sensor in the X- axis. Allow the Remote/Receiver time to take a reading. Once complete, the Remote/Receiver and laser will beep to indicate completion and prompt to move to the next axis.

8. Rotate the laser clockwise 90°, and use the iron sights to align the Y+ axis with the sensor. Wait for the audible beep sound.

9. Repeat for the X+, then the Y-. After the Y- is completed, the "COMPLETE" screen will appear on the Remote/Receiver. Press OK, the settings will be saved and the laser will power off.

Recalibrating the Vertical (Z) axis:

1. Place the laser on a stable surface elevated off the ground in the vertical orientation. After the calibration log is displayed, press the OK button to start calibration.

2. Enter the current date of the recalibration using the up and down arrows and press the OK button.

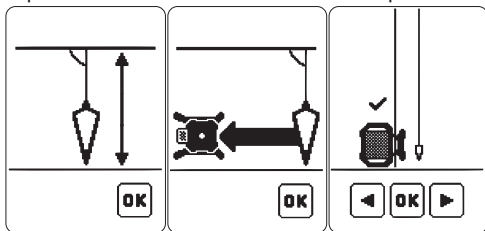
3. Select "Z" axis for recalibration and press the OK button. The see manual icon will appear. For the best results, read below steps carefully before pressing the OK button to continue.

4. Hang a Plumb Bob line at least 30' in length from the ceiling. Press the OK button to continue. Ensure that the laser is aligned with the reference line and is at least 6' from the Plumb Bob line. Press the OK button to continue.

5. Allow a few seconds for the laser to enter calibration mode. When ready, the laser will begin to rotate and the left/right and OK buttons on the LCD screen will become selectable. Use the arrow buttons to slowly adjust the laser plane so that it's parallel with the reference Plumb Bob line. Once aligned, press and hold the OK button to complete calibration.

6. When calibration is complete, the screen will say "COMPLETE", press the OK button. The settings will be saved and the laser will be powered off.

NOTE: If calibration fails, the screen on the Remote/Receiver will prompt users to restart the calibration process. If calibration fails multiple times, contact an authorized MILWAUKEE service center. User is able to press the main menu button to abort the procedure.



Changing the Bump Sensitivity

The laser is defaulted to high sensitivity bump setting from the factory. This setting can be changed using a paired Remote/Receiver.

- Select the bump setting icon from the main menu.
- Use the up/down arrows to select the desired setting then press OK to apply the setting. The laser will re-initialize the bump alarm in it's new setting.

Direct Read Out and Arrow Indicator

If a laser is sensed, the Direct Read Out, arrow indicator and Laser Locator Indicator LED will illuminate to guide the user in moving the receiver to align the laser with the center. If no laser is detected, the LED, arrow indicator will remain off, and the Direct Read Out will show no value and will display "- - -".

- Laser Locator Indicator LED is blue: - Move the receiver location up until on center.

- Laser Locator Indicator LED is green: - The line being detected from the laser is on center.

- Laser Locator Indicator LED is red: - Move the receiver location down until on center.

NOTE: If the laser leaves the sensor, the up or down arrow segments will begin to cycle indicating the direction that the laser was last detected.

Troubleshooting

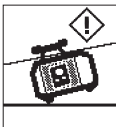
- Ensure batteries are inserted correctly according to the +/- polarity marked in the compartment.

- Replace batteries that may be at the end of life.

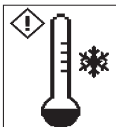
- Ensure the tool's internal temperature is within specified operating ranges. If stored in excessive heat or cold, allow at least 2 hours to acclimate to ambient temperature before turning on the tool.

- If the receiver freezes, press and hold the power button for 15 seconds or remove the batteries to reset.

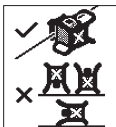
- Leveling Error** - The laser was unable to find a leveling solution due to time out or out of leveling range. Adjust laser to be on a level surface, any pressing of the buttons on the rotary laser may trigger the bump alarm or leveling may occur. If that doesn't work, press the leveling mode button on the laser. If that doesn't work, try power cycling the laser.



- Temperature Alarm** - Indicates that the laser is too hot or cold. To resume work, the laser must be returned to a suitable operating temperature. Note the internal temperature may be several degrees warmer than ambient temperature.



- Wrong Vertical Orientation Alarm** - This will appear if the laser is placed in a non-compatible vertical orientation. Adjust laser as directed on the LCD screen. The Keypad should be facing up and parallel to the ground.



Pairing Failure:

- Ensure the remote/receiver is powered on, within the distance range and in Pairing Mode.

- Avoid artificial overhead lighting on the remote/receiver sensor.

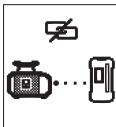
- Avoid the laser projecting a beam onto the remote/receiver sensor during pairing.

- Avoid transmitting devices.

- Place the laser on a stable surface during pairing to prevent interruption from bump alarms. For best results, pair in the horizontal orientation.

- The no connection error may appear if your devices are not paired. Try repeating the pairing steps in the "Pairing the Remote/Receiver with the Rotary Laser" section.

If problem persists, please contact an authorized MILWAUKEE service center for support.



ACCURACY FIELD CHECK

NOTICE Perform the Accuracy Field Check procedure immediately upon unboxing of each remote/receiver and before exposure to jobsite conditions. See "Accuracy Field Check" for information. Should any deviation from listed product accuracy be found, please contact an authorized MILWAUKEE service center. Failure to do so could result in rejection of warranty claim.

Influences on Accuracy

Sunlight or other extreme lighting conditions can adversely impact accuracy. For best results, use indoors or avoid direct sunlight.

Abusive treatment of the laser level Remote/Receiver, such as excessive impacts from drop, can lead to deviations in product accuracy.

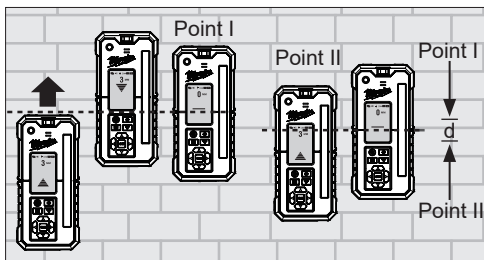
Therefore, it is recommended to conduct the Field Check procedure after any impact or before completing any critical jobs.

For best results, use with MILWAUKEE Lasers.

Remote/Receiver Accuracy Check Procedure

1. Set up compatible laser 30' from flat wall.
2. Ensure the laser source is self leveled and perpendicular to wall.
3. Place Remote/Receiver flat on wall directly in front of the laser source and slightly below the projected laser line.
4. Keeping the Remote/Receiver bottom parallel with the ground, raise receiver until down arrow appears.
5. Lower the Remote/Receiver until center line appears.
6. Mark a line on the wall – Point I.
7. Continue to lower Remote/Receiver until the up arrow appears.
8. Raise Remote/Receiver until center line appears.
9. Mark a line on the wall – Point II.
10. Measure the distance between Point I and Point II – divide by 2. After complete, compare this to the Receiver Accuracy table in the "Setting Accuracy" section.

NOTE: If the measured accuracy is out-of-spec according to this table, contact an authorized MILWAUKEE service center.



MAINTENANCE

⚠WARNING To reduce the risk of injury, always remove the battery before performing any maintenance. Never disassemble the tool.

Maintain Laser Receiver

Maintain tools. If damaged, have the tool repaired by an authorized MILWAUKEE service center before use. Accidents may be caused by poorly maintained tools.

⚠WARNING To reduce the risk of personal injury and damage, never immerse your tool in liquid or allow a liquid to flow inside them.

Cleaning

Clean dust and debris from any vents. Keep tool clean, dry and free of oil or grease. Use only mild soap and a damp cloth to clean, since certain cleaning agents and solvents are harmful to plastics and other insulated parts. Some of these include gasoline, turpentine, lacquer thinner, paint thinner, chlorinated cleaning solvents, ammonia and household detergents containing ammonia. Never use flammable or combustible solvents around tools.

Cleaning the Sensor Window

Blow off loose particles with clean compressed air. Carefully wipe the surface with a cotton swab moistened with water.

Repairs

For repairs, return the tool, battery pack and charger to the nearest authorized service center.

ACCESSORIES

⚠WARNING Use tools only with specifically designated accessories. Use of any other accessories may create risk of injury.

WIRELESS COMMUNICATION

For products provided with wireless communication features, including ONE-KEY™:

Pursuant to part 15.21 of the FCC Rules, do not modify this product. Modification could void your authority to operate the product. This device complies with part 15 of the FCC Rules and ISED-Canada's license exempt RSS standards. Operation is subject to the following two conditions: 1) This device may not cause harmful interference, and 2) This device must accept any interference received, including interference that may cause undesired operation.

SERVICE - UNITED STATES

1-800-SAWDUST (1.800.729.3878)

Monday-Friday, 7:00 AM - 6:30 PM CST

or visit www.milwaukeeetool.com

Contact Corporate After Sales Service Technical Support with technical, service/repair, or warranty questions.

Email: metproductsupport@milwaukeeetool.com

Become a Heavy Duty Club Member at www.milwaukeeetool.com to receive important notifications regarding your tool purchases.

SERVICE - CANADA

Milwaukee Tool (Canada) Ltd

1.877.948.2360

Monday-Friday, 7:00 AM - 4:30 PM CST

or visit www.milwaukeeetool.ca

LIMITED WARRANTY USA & CANADA

This MILWAUKEE power tool* is warranted to the original purchaser from an authorized MILWAUKEE distributor only to be free from defects in material and workmanship. Subject to certain exceptions, MILWAUKEE will repair or replace any part on this power tool which, after examination, is determined by MILWAUKEE to be defective in material or workmanship for a period of two (2) years after the date of purchase unless otherwise noted. Return of the power tool to a MILWAUKEE factory Service Center location or MILWAUKEE Authorized Service Station, freight prepaid and insured, is required. A copy of the proof of purchase should be included with the return product. This warranty does not apply to damage that MILWAUKEE determines to be from repairs made or attempted by anyone other than MILWAUKEE authorized personnel, misuse, alterations, abuse, normal wear and tear, lack of maintenance, or accidents.

Normal Wear: Many power tools need periodic parts replacement and service to achieve best performance. This warranty does not cover repair when normal use has exhausted the life of a part including, but not limited to, chucks, brushes, cords, saw shoes, blade clamps, o-rings, seals, bumpers, driver blades, pistons, strikers, lifters, and bumper cover washers.

*This warranty does not cover battery packs or all power tools. Refer to the separate and distinct warranties available for those products.

The warranty period for the LED in the LED Work Light (49-24-0171) and the LED Upgrade Bulb (49-81-0090) is the lifetime of the product subject to the limitations above. If during normal use the LED or LED Upgrade Bulb fails, the part will be replaced free of charge.

Warranty Registration is not necessary to obtain the applicable warranty on a MILWAUKEE power tool product. The manufacturing date of the product will be used to determine the warranty period if no proof of purchase is provided at the time warranty service is requested.

ACCEPTANCE OF THE EXCLUSIVE REPAIR AND REPLACEMENT REMEDIES DESCRIBED HEREIN IS A CONDITION OF THE CONTRACT FOR THE PURCHASE OF EVERY MILWAUKEE PRODUCT. IF YOU DO NOT AGREE TO THIS CONDITION, YOU SHOULD NOT PURCHASE THE PRODUCT. IN NO EVENT SHALL MILWAUKEE BE LIABLE FOR ANY INCIDENTAL, SPECIAL, CONSEQUENTIAL, OR PUNITIVE DAMAGES, OR FOR ANY COSTS, ATTORNEY FEES, EXPENSES, LOSSES OR DELAYS ALLEGED TO BE AS A CONSEQUENCE OF ANY DAMAGE TO, FAILURE OF, OR DEFECT IN ANY PRODUCT INCLUDING, BUT NOT LIMITED TO, ANY CLAIMS FOR LOSS OF PROFITS. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU. THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS WARRANTIES, WRITTEN OR ORAL. TO THE EXTENT PERMITTED BY LAW, MILWAUKEE DISCLAIMS ANY IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE; TO THE EXTENT SUCH DISCLAIMER IS NOT PERMITTED BY LAW, SUCH IMPLIED WARRANTIES ARE LIMITED TO THE DURATION OF THE APPLICABLE EXPRESS WARRANTY AS DESCRIBED ABOVE. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

This warranty applies to product sold in the U.S.A. and Canada only. Please consult the 'Service Center Search' in the Parts & Service section of MILWAUKEE's website www.milwaukeeetool.com or call 1.800.SAWDUST (1.800.729.3878) to locate your nearest service facility for warranty and non-warranty service on a MILWAUKEE power tool.