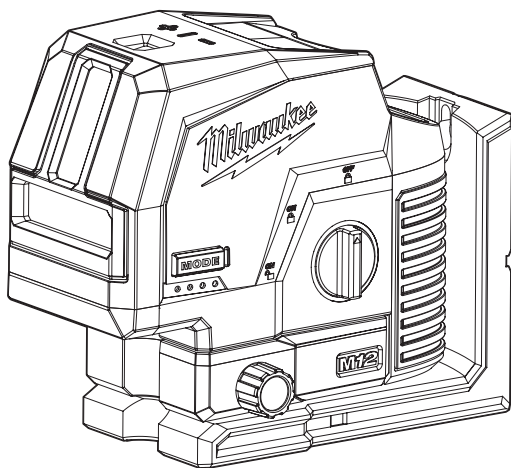




OPERATOR'S MANUAL
MANUEL de L'UTILISATEUR
MANUAL del OPERADOR



Cat. No. / No de cat.
3622-20

M12™ CROSS LINE & PLUMB POINTS LASER
LASER À LIGNE TRANSVERSALE ET POINTS D'APLOMB M12™
LÁSER DE PUNTOS TRANSVERSALES Y DE PLOMADA M12™



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.

LASER SAFETY

⚠WARNING The device produces visible laser beams, which are emitted from the tool.

• **This device complies with 21 CFR 1040.10 and 1040.11 except for conformance with IEC 60825-1 Ed. 3, as described in Laser Notice No. 56, dated May 8, 2019.**

• **Laser light - Do not stare into beam or view directly with optical instruments. Do not point laser light at others.** Laser light can cause eye damage.

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 TOOL USE AND CARE

• **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.

• **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.

• **When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another.** Shorting the battery terminals together may cause burns or a fire.

• **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.

• **Do not use a battery pack or tool that is damaged or modified.** Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion or risk of injury.

• **Do not expose a battery pack or tool to fire or excessive temperature.** Exposure to fire or temperature above 265°F (130°C) may cause explosion.

• **Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions.** Charging

improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

• **STORE YOUR BATTERY AND TOOL** in a cool, dry place. Do not store battery where temperatures may exceed 120°F (50°C) such as in direct sunlight, a vehicle or metal building during the summer.

SPECIFIC SAFETY RULES FOR LASER LEVELS

• **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.**

• **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 MILWAUKEE for a free replacement.

• **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.

FCC 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.

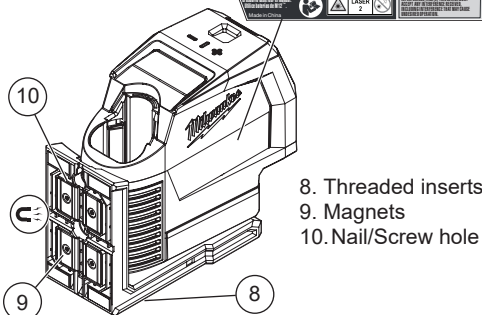
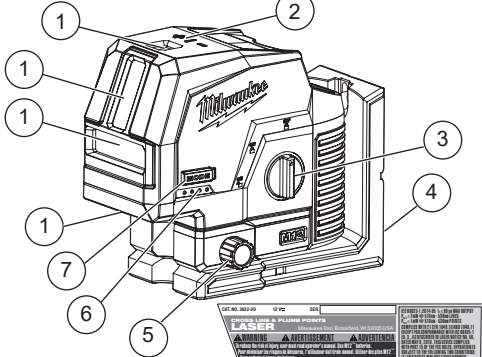
• Consult the dealer or an experienced radio/TV technician for help.

SPECIFICATIONS

Cat. No.....	3622-20
Volts.....	12 DC
Battery Type.....	M12™
Charger Type.....	M12™
Laser.....	Class 2
Lines Max Power.....	$P_{AVG} \leq 7 \text{ mW}$
Points Max Power.....	$P_{AVG} \leq 1 \text{ mW}$
Pulse Frequency.....	10 KHz
Pulse Duration Normal Mode.....	$T_p \leq 80 \mu\text{s}$
Pulse Duration Power Save.....	$T_p \leq 50 \mu\text{s}$
Wavelength.....	510-530 nm
Lines Beam Divergence.....	1 rad
Points Beam Divergence.....	0.5 mrad
Storage Temp.....	-4°F to 120°F
Working Range.....	125'
Range with Detector.....	165'
Accuracy.....	$\pm 1/8" @ 33'$
Settle Time.....	< 3 Seconds
Tripod Mount.....	1/4"-20, 5/8"-11
Ingress Protection.....	IP54
Drop Rating.....	1 m
Leveling.....	Auto ± 4 side to side, front to back
Recommended Ambient Operating Temperature.....	14°F to 104°F

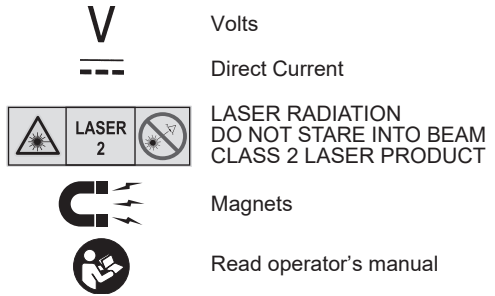
FUNCTIONAL DESCRIPTION

1. Laser apertures
2. Laser mode indicator
3. On/Off dial
4. Pivot Bracket
5. Micro adjust
6. Fuel gauge
7. Mode button



8. Threaded inserts
9. Magnets
10. Nail/Screw hole

SYMBOLOLOGY



ASSEMBLY

WARNING Recharge only with the charger specified for the battery. For specific charging instructions, read the operator's manual supplied with your charger and battery.

Removing/Inserting the Battery

To **remove** the battery, push in the release buttons and pull the battery pack away from the tool.

WARNING Always remove battery pack before changing or removing accessories.

To **insert** the battery, slide the pack into the body of the tool. Make sure it latches securely into place.

WARNING Only use accessories specifically recommended for this tool. Others may be hazardous.

Power Save

Use power save mode to extend the battery run time. Power save mode is indicated by dimmed laser beams and the Mode indicator pulsing. Visual range is decreased in power save mode. To turn power save mode ON or OFF, press and hold Mode button for 3 seconds. The tool will automatically switch to power save mode if less than 7% of battery charge remains.

Fuel Gauge

To determine the amount of charge left in the battery, turn the tool ON. The Fuel Gauge will light up for 2-3 seconds. When less than 10% of charge is left, 1 light on the fuel gauge will flash 4 times.

To signal the end of charge, 1 light on the fuel gauge will flash 8 times and the tool will not run. Charge the battery pack.

If the battery becomes too hot, the fuel gauge lights will flash and the tool will not run. Allow the battery to cool down.

*When automatically switched to power save mode due to low battery, the tool cannot be switched back to normal mode until the battery is charged/replaced.

WARNING To reduce the risk of injury or damage, securely mount/attach the laser before starting an operation. Injury/damage may occur if the laser falls.

Mounting/Adjusting the Laser Level

The pivot bracket can be used to mount the laser level in multiple ways:

- Use the embedded magnets to secure the laser level to steel studs, steel beams, etc.
- Use the keyhole slot to hang the laser level on the wall with a nail or screw.
- Set the laser level on a flat surface.

- Position the laser and/or wall mount on a stable surface.
- Use the 1/4"-20 or 5/8"-11 threaded insert to mount on a tripod.
- Once the level is mounted, use the micro adjustment knobs to fine tune the laser line.

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 Laser Level and before exposure to jobsite conditions. See "Accuracy Field Check" for information.

Turning On/Off

To turn on the laser and unlock the pendulum, rotate the On/Off dial to the desired position. The remaining battery life will be displayed. **WARNING!** Do not look directly into laser apertures. Laser Mode Indicator LED will display, and horizontal level line will immediately be emitted from aperture in the laser housing.




ON Turns ON the laser and unlocks the pendulum to enable self-leveling.

ON Turns ON the laser but does not unlock the pendulum (self leveling is disabled). The laser lines will flash once every 8 seconds to indicate that the projected lines are not level or plumb.

NOTICE: The **ON** mode disables self-leveling and therefore is not intended for projecting a level or plumb line.

OFF Turns OFF the laser and locks the pendulum. When not in use, turn off the tool and store the Laser Level in the protective carrying case.

Use the MODE button to cycle through the three laser modes:

-  Horizontal Level Line
-  Vertical Plumb Line & Plumb Points
-  Perpendicular Level & Plumb Points

The green laser mode indicators will display the selected mode.

Using the Laser Level

1. For best results, place the tool on a work surface that is:
 - sturdy
 - level (within 4 degrees of true level)
 - free of vibrations
 - 90° to the work area
2. Turn on the tool.
3. The tool will self-level when placed on surfaces within 4 degrees of true level when dial is unlocked and on.
4. The tool is ready once the emitted lines are continuous and no longer moving on the work surface.
5. If the tool cannot achieve a level state (i.e., the work surface is > 4 degrees off true level), the laser beams will flash rapidly (3 flashes per second). Relocate or adjust the work surface.

Troubleshooting

If the tool does not turn on:

- Ensure battery is installed properly. Fuel gauge should indicate remaining charge when correctly installed.
 - Ensure battery is charged.
 - 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 problem persists, please contact a MILWAUKEE service facility for support.

ACCURACY FIELD CHECK

NOTICE Perform the Accuracy Field Check procedure immediately upon unboxing of each new Laser Level 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.

Influences on Accuracy

Ambient temperature gradients can impact laser accuracy. For accurate and repeatable results, the following procedure should be conducted with the laser elevated off the ground and placed in the center of the working area.

Abusive treatment of the Laser Level, such as excessive impacts from drop, can also lead to deviations in product accuracy.

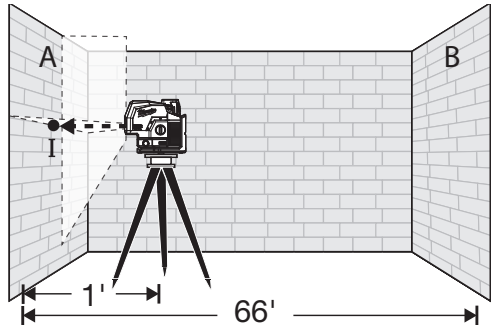
Therefore, it is recommended to conduct the Field Check procedure after any impact or before completing any critical jobs.

Horizontal Height Accuracy

A free measuring distance of approximately 66' on a firm surface between two walls or structures A and B is required for this check.

It is also suggested to mount the Laser Level to a Tripod for easy adjustment.

1. Securely mount the tool within 1' of wall A.



2. Turn the tool to **ON** and to **+** Perpendicular Level & Plumb Points Mode.
3. Direct the front laser beam against the nearest wall A and allow to self-level. Mark the center of the laser cross on the wall (point I).
4. Rotate the tool 180° without changing the height, allow it to self-level, and mark the center of the laser cross on the opposite wall B (point II).

Horizontal Leveling Accuracy

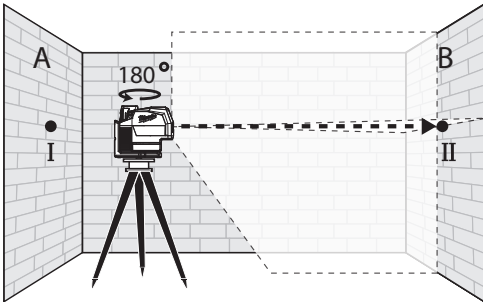
A free measuring space of approximately 33'x33' on a firm surface between two walls or structures A and B is required for the check.

It is also suggested to mount the Laser Level to a Tripod for easy adjustment.

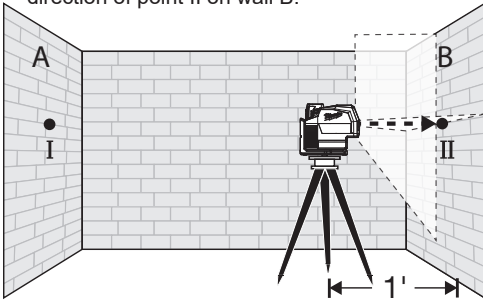
Securely mount the tool on one side of the room and centered between walls A and B. Direct the laser lines toward the other side of the room such that the horizontal line appears on both walls A and B. Allow the laser to Self-Level.

1. Turn the tool to  ON and to  Horizontal Level Line mode.

2. At a distance of 16.5' from the laser, mark the center of the horizontal line on Wall A (Point I). Do the same on Wall B (Point II).

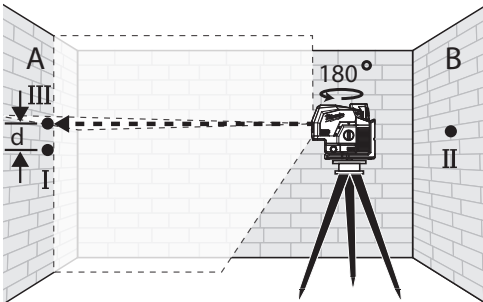


5. Move the tool within 1' of wall B. Allow the laser to self level. Align the laser cross in the general direction of point II on wall B.

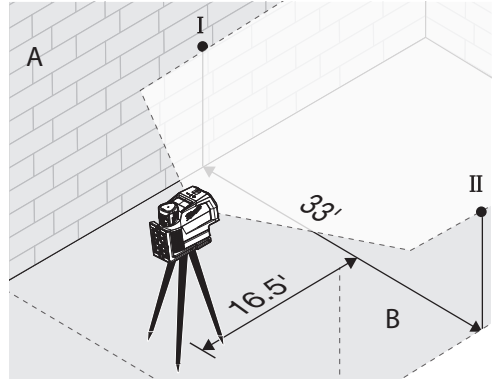


6. Adjust the height of the tool (using the tripod or by adding shims, if required) to align the laser cross directly onto point II on wall B. Allow the tool to self-level.

7. Rotate the tool 180° without changing the height, allow it to self-level, and mark the center of the laser cross on wall A (point III). Point III should be aligned as vertically above or below point I on wall A as possible.



8. The distance between points I and III on wall A is the height deviation (d) of the tool. This distance should not exceed 1/8" (max.) at 33' (1/2" at 132'). For the Measuring distance of $2 \times 66' = 132'$, the maximum allowable deviation (d) is: $132' \times \pm 1/8" + 33' = \pm 1/2'$.

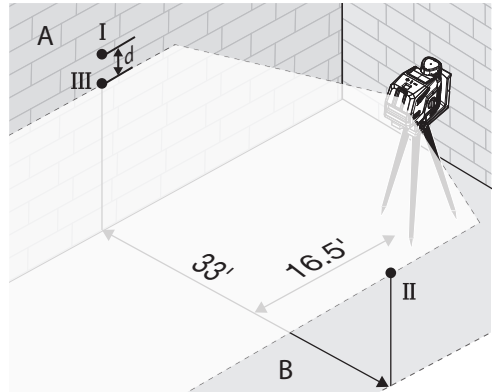


3. Move the Laser 33' toward the opposite wall and rotate the laser 180°. Allow the laser to Self-Level.

4. Adjust the height of the tool (using the tripod or by adding shims, if required) such that the center of the horizontal line is projected exactly against the previously marked point II on wall B. Ensure the Laser is self-leveled after alignment.

5. Mark the center of horizontal line on wall A (point III). Take care that point III is aligned as vertical as possible above or below point I.

6. The distance d between marked points I and III on wall A indicates the actual deviation (d) of the tool.

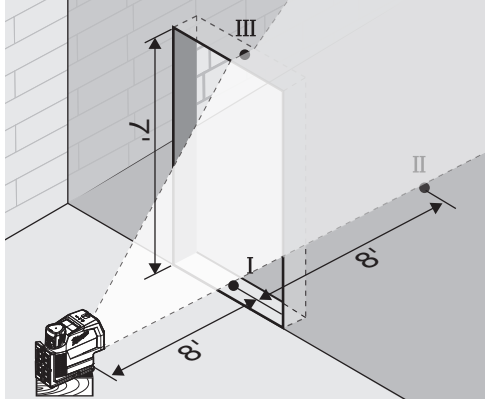


7. For the Measuring distance of $2 \times 33' = 66'$, the maximum allowable deviation (d) is: $66' \times \pm 1/8" + 33' = \pm 1/4'$. Thus, the difference d between points I and III should not exceed 1/4" (max.) at 66'.

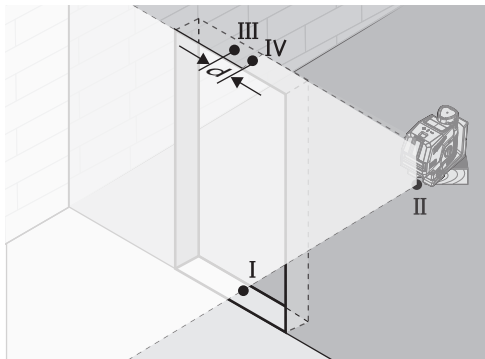
Vertical Leveling Accuracy

A door opening with approximately 8' of space on each side of the opening is required for this check.

1. Securely mount the tool 8' from one side of the door opening.
2. Turn the tool to ON and to Vertical Plumb Line & Plumb Points Mode or Perpendicular Level & Plumb Point Mode.
3. Position the tool with the laser towards the door opening. Allow the tool to self-level.
4. Mark the center of the vertical laser line on the floor in the middle of the door opening (point I), at a distance of 8' beyond the door opening (point II), and at the upper edge of the door opening (point III).



5. Move the laser level directly behind point II on the other side of the door. Align the vertical laser line so the center is directly aligned with points I and II.
6. Mark the center of the vertical line at the upper edge of the door opening (point IV).
7. Measure the height of the door opening.
8. The distance between points III and IV on the upper door opening is the vertical deviation (d) of the tool.

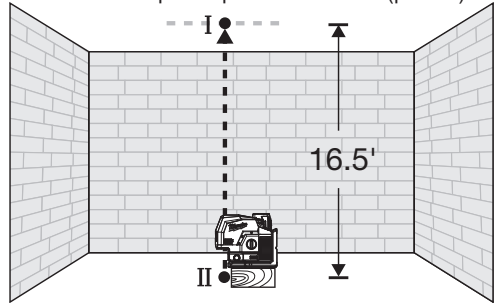


9. The maximum vertical deviation (d) is: $d_{max} = 2X H (\text{door opening}) \times \pm 1/8" + 33'$.
Example: for a door opening height of 7', the maximum permitted deviation (d) is: $d_{max} = 2 \times 7' \times \pm 1/8" + 33' = \pm 0.05"$.
Therefore, the measurement between points III and IV on the upper door opening should not exceed 0.05" in a 7' doorway.

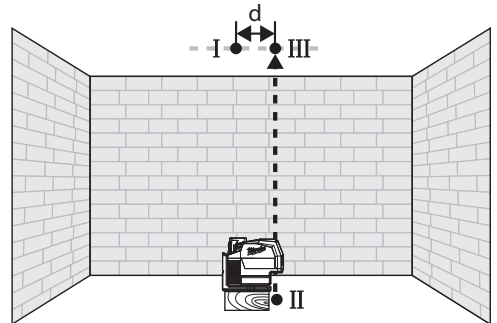
Plumb Dot Accuracy

A free measuring distance of approximately 16.5' between floor and ceiling on a firm surface is required for this check. It is suggested to install riser block, if not already equipped.

1. Place the tool within 1' of the floor.
2. Turn the tool to ON and to Vertical Plumb Line Mode or Perpendicular Level & Plumb Point Mode.
3. Set tool on ground and mark the center of the plumb point on the ceiling (point I). Also, mark the center of the plumb point on the floor (point II).



4. Rotate the tool 180°. Align the center point of the laser beam directly onto the floor point II.
5. Mark the center of the top plumb point on the reference line on the ceiling (point III).



6. The distance between points I and III on the ceiling is the deviation (d) of the tool. This distance should not exceed 1/8" (max.) at 33'. For the Measuring distance of $2 \times 16.5' = 33'$, the maximum allowable deviation (d) is: $33' \times \pm 1/8" + 33' = \pm 1/8"$.

MAINTENANCE

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

Maintain Laser Level

Maintain tools. If damaged, have the tool repaired 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 Lenses

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.

SERVICE - UNITED STATES

1-800-SAWDUST (1.800.729.3878)

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

or visit www.milwaukeetool.com

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

Email: metproductsupport@milwaukeetool.com

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

SERVICE - CANADA

Milwaukee Tool (Canada) Ltd

1.800.268.4015

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

or visit www.milwaukeetool.ca

LIMITED WARRANTY USA & CANADA

Every MILWAUKEE power tool* (see exceptions below) is warranted to the original purchaser only to be free from defects in material and workmanship. Subject to certain exceptions, MILWAUKEE will repair or replace any part on an electric power tool which, after examination, is determined by MILWAUKEE to be defective in material or workmanship for a period of five (5) 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 Air Nailers & Staplers; Airless Paint Sprayer; Cordless Battery Packs; Gasoline Driven Portable Power Generators; Hand Tools; Hoist – Electric, Lever & Hand Chain; M12™ Heated Gear; Reconditioned Product; and Test & Measurement Products. There are separate and distinct warranties available for these products. **The warranty period for Job Site Radios, M12™ Power Port, M18™ Power Source, Jobsite Fan and Trade Titan™ Industrial Work Carts is one (1) year from the date of purchase. The warranty period for the M18 FUEL™ 1" D-Handle High Torque Impact Wrenches, Drain Cleaning Cables, AIRSNAKE™ Drain Cleaning Air Gun Accessories, REDLITHIUM™ USB Laser Levels, TRAPSAKE™ 25 Auger w/ CABLE DRIVE™, FORCE LOGIC™ Press Tool Accessories and Green Cross Line Laser is two (2) years from the date of purchase. The warranty period for the M18™ Compact Heat Gun, 8 Gallon Dust Extractor, M18™ Framing Nailers, M18 FUEL™ 1/2" Ext. Anvil Controlled Torque Impact Wrench w/ ONE-KEY™, M18 FUEL™ 1" High Torque Impact Wrench w/ ONE-KEY™, M18 FUEL™ 2 Gal. Compact Oiljet Compressor, M12™ Laser Levels, 165' Laser Detector, M12™ 23GA Pin Nailer, M18 FUEL™ 1/4" Blind Rivet Tool w/ ONE-KEY™, M12 FUEL™ Low Speed Tire Buffer, M18 FUEL™ Random Orbital Polishers, M18™ Utility Fencing Stapler, and the 72" Laser Tripod is three (3) years from the date of purchase. The warranty period for the LED in the LED Work Light and the LED Upgrade Bulb for the Work Light is the lifetime of the product subject to the limitations above. If during normal use the LED or LED 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 Part & Service section of MILWAUKEE's website www.milwaukeetool.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 electric power tool.