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1-800-4-DEWALT • www.dewalt.com

**INSTRUCTION MANUAL
GUIDE D'UTILISATION
MANUAL DE INSTRUCCIONES**

INSTRUCTIVO DE OPERACIÓN, CENTROS DE SERVICIO Y PÓLIZA
DE GARANTÍA. **ADVERTENCIA:** LEASE ESTE INSTRUCTIVO ANTES
DE USAR EL PRODUCTO.

D E W A L T®

DW073 Cordless Rotary Laser
Laser rotatif sans fil DW073
DW073 Láser rotatorio inalámbrico

English

If you have any questions or comments about this or any DeWalt tool, call us toll free at:

1-800-4-DEWALT (1-800-433-9258)

Introduction

The DW073 Cordless Rotary Laser is a manually leveled laser tool that can be used both inside and outside for horizontal (level) and vertical (plumb) alignment projects. This tool comes fully assembled. Applications range from acoustical ceiling installation and wall layout to foundation leveling and deck building. This tool has been designed with many innovative features that allow for quick and easy set-up and adjustment which will increase your productivity on the job. Please read and understand all instructions within this manual prior to use.

General Safety Rules For Battery Operated Tools

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 THESE INSTRUCTIONS

WORK AREA

- Keep your work area clean and well lit. Cluttered benches and dark areas invite accidents.
- Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust. Power tools create sparks which may ignite the dust or fumes.
- Keep bystanders, children, and visitors away while operating a power tool. Distractions can cause you to lose control.

ELECTRICAL SAFETY

- A battery operated tool with integral batteries or a separate battery pack must be recharged only with the specified charger for the battery. A charger that may be suitable for one type of battery may create a risk of fire when used with another battery.

- Use battery operated tool only with the specifically designated battery pack. Use of any other batteries may create a risk of fire.

PERSONAL SAFETY

- Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating power tools may result in serious personal injury.
- Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts. Loose clothing, jewelry, or long hair can be caught in moving parts. Air vents often cover moving parts and should also be avoided.
- Avoid accidental starting. Be sure switch is in the locked or off position before inserting battery pack. Carrying tools with your finger on the switch or inserting the battery pack into a tool with the switch on invites accidents.
- Do not overreach. Keep proper footing and balance at all times. Proper footing and balance enables better control of the tool in unexpected situations.
- Use safety equipment. Always wear eye protection. Dust mask, non-slip safety shoes, hard hat, or hearing protection must be used for appropriate conditions.

TOOL USE AND CARE

- Use clamps or other practical way to secure and support the workpiece to a stable platform. Holding the work by hand or against your body is unstable and may lead to a loss of control.
- Do not use tool if switch does not turn it on or off. A tool that cannot be controlled with the switch is dangerous and must be repaired.
- Disconnect battery pack from tool or place the switch in the locked or off position before making any adjustments, changing accessories, or storing the tool. Such preventative safety measures reduce the risk of starting the tool accidentally.

- **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
 - **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 sparks, burns, or a fire.
 - **Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tools operation. If damaged, have the tool serviced before using.** Many accidents are caused by poorly maintained tools.
 - **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool, may create a risk of injury when used on another tool.
- SERVICE**
- **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel may result in a risk of injury.

English

guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio and 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.
 - Connect the equipment into an outlet on a circuit different from that which the receiver is connected.
 - Consult the dealer or an experienced radio/TV technician for help.
- These Class B digital devices comply with Canadian ICES-003.
- ⚠ CAUTION:** Some tools with large battery packs will stand upright on the battery pack but may be easily knocked over. When not in use, place tool on its side on a stable surface where it will not cause a tripping or falling hazard.
- The label on your tool may include the following symbols.

V	volts	A	amperes
Hz	hertz	W	watts
min	minutes	~	alternating current
=..=	direct current	no	no load speed
□	Class II	(⊕)	earthing
.....	Construction	terminalrevolutions or reciprocations
▲	safety alert symbol	.../min	per minute

Additional Safety Rules

⚠ WARNING! DO NOT DISASSEMBLE LASER LEVEL. There are no user serviceable parts inside. Disassembling the laser level will void all warranties on the product. Do not modify the product in any way.

These devices comply with Part 15 of the FCC Rules. 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.

NOTE: 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

Important Safety Instructions for Battery Packs

Your tool uses a 9.6, 12.0, 14.4 or an 18 Volt DEWALT battery pack. When ordering replacement battery packs, be sure to include catalog number and voltage. Extended Run-Time battery packs deliver more

English

run-time than standard battery packs. Consult the chart at the end of this manual for compatibility of chargers and battery packs.

NOTE: Your tool will accept either standard or Extended Run Time battery packs. However, be sure to select proper voltage. Batteries slowly lose their charge when they are not on the charger, the best place to keep your battery is on the charger at all times.

The battery pack is not fully charged out of the carton. Before using the battery pack and charger, read the safety instructions below. Then follow charging procedures outlined.

READ ALL INSTRUCTIONS

- **Do not incinerate the battery pack even if it is severely damaged or is completely worn out.** The battery pack can explode in a fire.

- **A small leakage of liquid from the battery pack cells may occur under extreme usage or temperature conditions.** This does not indicate a failure. However, if the outer seal is broken and this leakage gets on your skin:

- a. Wash quickly with soap and water.
 - b. Neutralize with a mild acid such as lemon juice or vinegar.
 - c. If battery liquid gets into your eyes, flush them with clean water for a minimum of 10 minutes and seek immediate medical attention. (**Medical note:** The liquid is 25-35% solution of potassium hydroxide.)
- Charge the battery packs only in DEWALT chargers.
 - **DO NOT** splash or immerse in water or other liquids.
 - **Do not store or use the tool and battery pack in locations where the temperature may reach or exceed 105°F (40°) (such as outside sheds or metal buildings in summer).**
- ⚠ DANGER:** Electrocution hazard. Never attempt to open the battery pack for any reason. If battery pack case is cracked or damaged, do not insert into charger. Electric shock or electrocution may result. Damaged battery packs should be returned to service center for recycling.



NOTE: Battery storage and carrying caps are provided for use whenever the battery is out of the tool or charger.

Remove cap before placing battery in charger or tool.

⚠ WARNING: Do not store or carry battery so that metal objects can contact exposed battery terminals.

For example, do not place battery in aprons, pockets, tool boxes, product kit boxes, drawers, etc., with loose nails, screws, keys, etc. without battery cap. **Transporting batteries can possibly cause fires if the battery terminals inadvertently come in contact with conductive materials such as keys, coins, hand tools and the like.** The US Department of Transportation Hazardous Material Regulations (HMR) actually prohibit transporting batteries in commerce or on airplanes (i.e., packed in suitcases and carry-on luggage) UNLESS they are properly protected from short circuits. So when transporting individual batteries, make sure that the battery terminals are protected and well insulated from materials that could contact them and cause a short circuit.

The RBRC™ Seal

The RBRC™ (Rechargeable Battery Recycling Corp oration) Seal on the nickel-cadmium battery (or battery pack) indicates that the costs to recycle the battery (or battery pack) at the end of its useful life have already been paid by DEWALT. In some areas, it is illegal to place spent nickel-cadmium batteries in the trash or municipal solid waste stream and the RBRC program provides an environmentally conscious alternative.

RBRC in cooperation with DEWALT and other battery users, has established programs in the United States to facilitate the collection of spent nickel-cadmium batteries. Help protect our environment and conserve natural resources by returning the spent nickel-cadmium battery to an authorized DEWALT service center or to your local retailer for recycling. You may also contact your local recycling center for information on where to drop off the spent battery. RBRC™ is a registered trademark of the Rechargeable Battery Recycling Corporation.

Important Safety Instructions for Battery Chargers

SAVE THESE INSTRUCTIONS: This manual contains important safety instructions for battery chargers.

- Before using charger, read all instructions and cautionary markings on charger, battery pack, and product using battery pack.

DANGER: Electrocution hazard. 120 volts are present at charging terminals. Do not probe with conductive objects. Electric shock or electrocution may result.

WARNING: Shock hazard. Do not allow any liquid to get inside charger. Electric shock may result.

CAUTION: Burn hazard. To reduce the risk of injury, charge only DEWALT nickel cadmium rechargeable batteries. Other types of batteries may burst causing personal injury and damage.

CAUTION: Under certain conditions, with the charger plugged in to the power supply, the exposed charging contacts inside the charger can be shorted by foreign material. Foreign materials of a conductive nature such as, but not limited to, steel wool, aluminum foil, or any buildup of metallic particles should be kept away from charger cavities. Always unplug the charger from the power supply when there is no battery pack in the cavity. Unplug charger before attempting to clean.

DO NOT attempt to charge the battery pack with any chargers other than the ones in this manual. The charger and battery pack are specifically designed to work together.

These chargers are not intended for any uses other than charging DEWALT rechargeable batteries. Any other uses may result in risk of fire, electric shock or electrocution.

Do not expose charger to rain or snow.

Pull by plug rather than cord when disconnecting charger. This will reduce risk of damage to electric plug and cord.

Make sure that cord is located so that it will not be stepped on, tripped over, or otherwise subjected to damage or stress.

- **Do not use an extension cord unless it is absolutely necessary.** Use of improper extension cord could result in risk of fire, electric shock, or electrocution.

- **An extension cord must have adequate wire size (AWG or American Wire Gauge) for safety.** The smaller the gauge number of the wire, the greater the capacity of the cable, that is 16 gauge has more capacity than 18 gauge. When using more than one extension to make up the total length, be sure each individual extension contains at least the minimum wire size.

Recommended Minimum Wire Size for Extension Cords

Total Length of Cord	Wire Size AWG	25 ft.	50 ft.	75 ft.	100 ft.	125 ft.	150 ft.	175 ft.
7.6 m	18	15.2 m	22.9 m	30.5 m	38.1 m	45.7 m	53.3 m	61.0 m
18	18	16	16	16	14	14	12	12

- **Do not place any object on top of charger or place the charger on a soft surface that might block the ventilation slots and result in excessive internal heat.** Place the charger in a position away from any heat source. The charger is ventilated through slots in the top and the bottom of the housing.
- **Do not operate charger with damaged cord or plug — have them replaced immediately.**
- **Do not operate charger if it has received a sharp blow, been dropped, or otherwise damaged in any way.** Take it to an authorized service center.
- **Do not disassemble charger; take it to an authorized service center when service or repair is required.** Incorrect reassembly may result in a risk of electric shock, electrocution or fire.
- **Disconnect the charger from the outlet before attempting any cleaning.** This will reduce the risk of electric shock. Removing the battery pack will not reduce this risk.
- **NEVER attempt to connect 2 chargers together.**
- **The charger is designed to operate on standard household electrical power (120 Volts).** **Do not attempt to use it on any other voltage.** This does not apply to the vehicular charger.

English

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Using Automatic Tune-Up™ Mode

The Automatic Tune-Up™ Mode equalizes or balances the individual cells in the battery pack allowing it to function at peak capacity. Battery packs should be tuned up weekly or after 10 charge/discharge cycles or whenever the pack no longer delivers the same amount of work. To use the Automatic Tune-Up™, place the battery pack in the charger and leave it for at least 8 hours. The charger will cycle through the following modes.

1. The red light will blink continuously indicating that the 1-hour charge cycle has started.
2. When the 1-hour charge cycle is complete, the light will stay on continuously and will no longer blink. This indicates that the pack is fully charged and can be used at this time.
3. Whenever the pack is left in the charger after the initial 1-hour charge, the charger will begin the Automatic Tune-Up™ Mode. This mode continues up to 8 hours or until the individual cells in the battery pack are equalized. The battery pack is ready for use and can be removed at any time during the Tune-Up™ Mode.
4. Once the Automatic Tune-Up™ Mode is complete the charger will transition to a maintenance charge; the indicator light shuts off when the Automatic Tune-Up™ Mode is complete.

Chargers

Your tool uses a 7.2, 9.6, 12.0, 14.4, or 18.0 Volt DEWALT charger. Your battery can be charged in DEWALT 1 Hour Chargers, 15 Minute Chargers or Vehicular 12 Volt Charger. Be sure to read all safety instructions before using your charger. Consult the chart at the end of this manual for compatibility of chargers and battery packs.

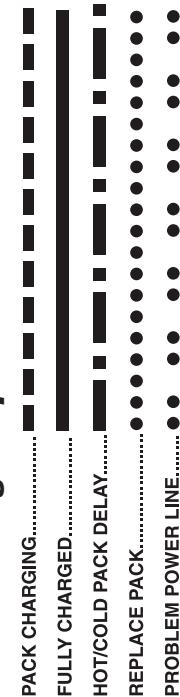
Charging Procedure

A DANGER: *Electrocution hazard. 120 volts present at charging terminals. Do not probe with conductive objects. Danger of electric shock or electrocution.*

1. Plug the charger into an appropriate outlet before inserting battery pack

2. Insert the battery pack into the charger making sure the pack is fully seated. The red (charging) light will blink continuously indicating that the charging process has started.
3. The completion of charge will be indicated by the red light remaining ON continuously. The pack is fully charged and may be used at this time or left in the charger.

Indicator Light Operation



Charge Indicators

Some chargers are designed to detect certain problems that can arise with battery packs. Problems are indicated by the red light flashing at a fast rate. If this occurs, re-insert battery pack into the charger. If the problem persists, try a different battery pack to determine if the charger is OK. If the new pack charges correctly, then the original pack is defective and should be returned to a service center or other collection site for recycling. If the new battery pack elicits the same trouble indication as the original, have the charger tested at an authorized service center.

HOT/COLD PACK DELAY

Some chargers have a Hot/Cold Pack Delay feature; when the charger detects a battery that is hot, it automatically starts a Hot Pack Delay, suspending charging until the battery has cooled. After the battery has cooled, the charger automatically switches to the Pack Charging mode. This feature ensures maximum battery life. The red light flashes long, then short while in the Hot Pack Delay mode.

PROBLEM POWER LINE

Some chargers have a Problem Power Line indicator. When the charger is used with some portable power sources such as generators or sources that convert DC to AC, the charger may temporarily suspend operation, **flashing the red light with two fast blinks followed by a pause**. This indicates the power source is out of limits.

LEAVING THE BATTERY PACK IN THE CHARGER

The charger and battery pack can be left connected with the red light glowing indefinitely. The charger will keep the battery pack fresh and fully charged.

NOTE: A battery pack will slowly lose its charge when kept out of the charger. If the battery pack has not been kept on maintenance charge, it may need to be recharged before use. A battery pack may also slowly lose its charge if left in a charger that is not plugged into an appropriate AC source.

WEAK BATTERY PACKS:

Chargers can also detect a weak battery. Such batteries are still usable but should not be expected to perform as much work. In such cases, about 10 seconds after battery insertion, the charger will beep rapidly 8 times to indicate a weak battery condition. The charger will then go on to charge the battery to the highest capacity possible.

Important Charging Notes

1. Longest life and best performance can be obtained if the battery pack is charged when the air temperature is between 65°F and 75°F (18°-24°C). DO NOT charge the battery pack in an air temperature below +40°F (+4.5°C), or above +105°F (+40.5°C). This is important and will prevent serious damage to the battery pack.
2. The charger and battery pack may become warm to touch while charging. This is a normal condition, and does not indicate a problem. To facilitate the cooling of the battery pack after use, avoid placing the charger or battery pack in a warm environment such as in a metal shed, or an uninsulated trailer.

3. If the battery pack does not charge properly:

- a. Check current at receptacle by plugging in a lamp or other appliance
 - b. Check to see if receptacle is connected to a light switch which turns power off when you turn out the lights.
 - c. Move charger and battery pack to a location where the surrounding air temperature is approximately 65°F - 75°F (18°-24°C).
 - d. If charging problems persist, take the tool, battery pack and charger to your local service center.
 4. The battery pack should be recharged when it fails to produce sufficient power on jobs which were easily done previously. DO NOT CONTINUE to use under these conditions. Follow the charging procedure. You may also charge a partially used pack whenever you desire with no adverse effect on the battery pack.
 5. Under certain conditions, with the charger plugged into the power supply, the exposed charging contacts inside the charger can be shorted by foreign material. Foreign materials of a conductive nature such as, but not limited to, steel wool, aluminum foil, or any buildup of metallic particles, should be kept away from charger cavities. Always unplug the charger from the power supply when there is no battery pack in the cavity. Unplug charger before attempting to clean.
 6. Do not freeze or immerse charger in water or any other liquid.
- ⚠ WARNING:** Shock hazard. Don't allow any liquid to get inside charger. Electric shock may result.
- ⚠ CAUTION:** Never attempt to open the battery pack for any reason. If the plastic housing of the battery pack breaks or cracks, return to a service center for recycling.

CHARGER CLEANING INSTRUCTIONS

⚠ WARNING: Shock hazard. Disconnect the charger from the AC outlet before cleaning. Dirt and grease may be removed from the exterior of the charger using a cloth or soft non-metallic brush. Do not use water or any cleaning solutions.

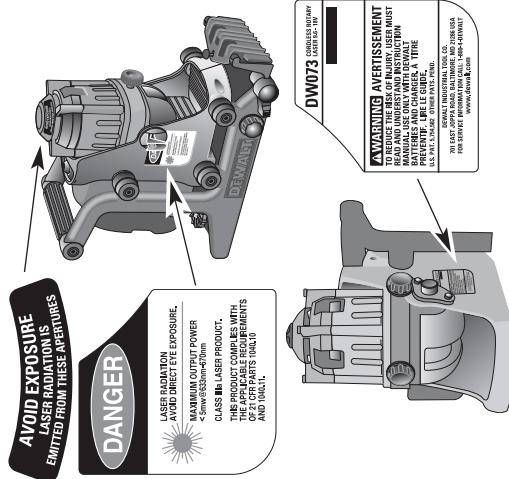
English

English

Laser Safety

The DW073 Cordless Rotary Laser is listed as a CLASS IIIa LASER PRODUCT and complies with the applicable requirements of title 21 of the Code of Federal Regulations set forth by: the Department of Health, Education, and Welfare; the Food and Drug Administration; the Center for Devices and Radiological Health.

A DANGER: THIS PRODUCT EMITS LASER RADIATION - DO NOT STARE INTO THE LASER BEAM.



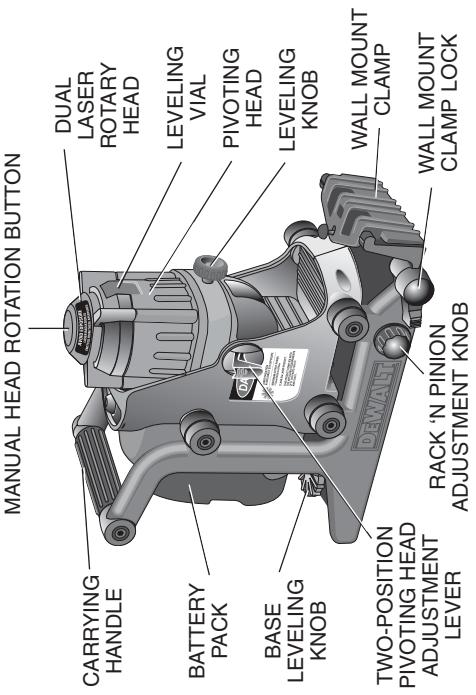
A CAUTION: The use of optical instruments with this product will increase eye hazard.

- Set the laser at a position above or below eye level.
- **DO NOT** disassemble the laser tool. There are no user serviceable parts inside.

- When using the laser overhead, always use a ceiling wire hanger or equivalent material in addition to the wall mount clamp to help secure the laser level while mounting it to a wall. See "Wall Mount" section for instructions.
- The use of controls or adjustments or procedures other than those specified herein may result in Hazardous Radiation Exposure.
- **DO NOT** modify the laser in any way. Modifying the tool may result in Hazardous Laser Radiation Exposure.

- Repairs and servicing must be performed by a qualified repair facility.

- **DO NOT** allow children to operate the laser tool.
- **DO NOT** operate the laser around children.
- **DO NOT** Remove warning labels from the tool.
- Your operating conditions may require that you post a Laser "DANGER" sign. One has been provided with this product.



Operating Tips

- Ensure battery is properly charged. If the "Power" LED light is flashing, the battery needs to be charged.
- To extend battery life per charge, turn laser off when not working with or marking the beam.
- To ensure the accuracy of your work, check to make sure your laser is calibrated often. See "Field Calibration" section.
- Before attempting to level the laser, make sure the tool is positioned on a relatively smooth surface.

- The more accurately centered the bubbles are in the vials, the more accurate the laser beam will be for working.
- Your DEWALT laser is equipped with 2, side by side laser diodes which produce an extremely bright, visible beam when the laser head is rotated.
- Always mark the center of the laser line or dot.
- To increase working distance and accuracy, set up the laser in the middle of your working area.
- When attaching to a tripod or wall, mount the laser securely.
- When working indoor a slow rotary head speed will produce a visibly brighter line, a faster rotary head speed will produce a visibly solid line.
- To increase beam visibility, wear the Laser Enhancement Glasses provided and/or use the Laser Target Card to help find the beam.
- To transfer a laser dot mark use the Manual Rotation Button on the top of the laser head for quick and easy control. See "Manual Head Rotation Button" section for instructions.
- Extreme temperature changes can cause movement of internal parts that can effect accuracy. Check your accuracy often while working.
- When working with the DEWALT Digital Laser Detector set the laser variable speed control to the highest setting (600 RPM).
- Utilize the Bump Sensor feature on the laser to warn you if the tool has been bumped after set up.
- If the laser has been dropped or has tipped over while set up on a tripod, have the calibration system checked by a qualified service center before continuing use.

English

To remove the battery pack from the tool, push the battery in slightly, then press the release buttons, and firmly pull the battery pack out of the receptacle. The battery ejector pin (D) will aid in removing the pack. To recharge the battery pack, insert it into the charger as described in the charger section of this manual.

Control Panel

The Control Panel contains the ON/OFF/Variable Speed Switch, ON/LOW Battery Indicator LED Light, and Bump Sensor Control Buttons and LED Indicator Lights.

To Turn the Laser On:

Insert fully charged battery pack through proper cut out in battery adapter plate. Ensure battery is firmly engaged. Rotate the ON/OFF knob (A) clockwise to power the laser ON. The dual laser diodes will turn on and the POWER LED (B) Light will illuminate. The rotary head will remain stationary during the first 1/4 turn of the knob. Rotation of the laser head will begin as the Variable Speed knob continues to be turned clockwise. The rotary head speed is variable from 0-600 RPM. The POWER LED Light will remain lit as long as the switch is turned ON and the battery remains charged.

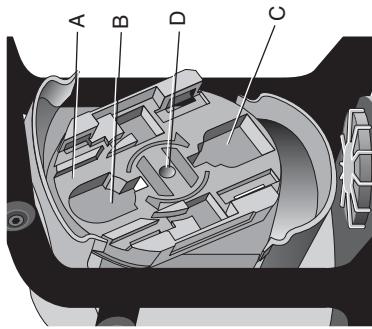
Low Battery Indicator:

The DW073 is equipped with a Low Battery Indicator. A flashing POWER LED Light indicates that the battery pack needs to be recharged. All other electronic functions of the tool will shut down, including the laser diodes. Follow recharging instructions for battery packs as mentioned in this manual.

Installing and Removing the Battery Pack

NOTE: Make sure your battery pack is fully charged.

To install the battery pack into the rotary laser, rotate the battery adapter plate (A) with applicable cut out for 9.6, 12, 14.4 volt pack (B) or the other for the 18 volt pack (C) aligned with the battery contacts facing inside the cut out and slide the battery pack in firmly until you hear the battery pack lock in place.



English

BUMP SENSOR CONTROLS

The Bump Sensor is activated as soon as you turn the laser power ON and will remain active until you turn the laser power OFF. Through the use of the Bump Sensor Controls, you can choose how the laser warns you in the event it has been bumped. There are two settings to choose from.

SETTING 1 FLASHING LED WARNING LIGHT ONLY

With a fully charged battery properly inserted, turn the laser power ON. The Bump Sensor is automatically activated.

- Level the laser to establish a benchmark.

- Choose your rotation speed.

- If the laser level is bumped, the Bump Sensor WARNING LED (E) will flash to warn you.

- To continue working, recheck the laser to your benchmark and re-level if necessary.

- Press the Bump Sensor RESET Button (F) to clear the flashing LED light and reset the Bump Sensor circuit.

SETTING 2 FLASHING LED WARNING LIGHT, FLASHING LASER DIODES, AND ROTATION STOP

With a fully charged battery properly inserted, turn the laser power ON. The Bump Sensor is automatically activated.

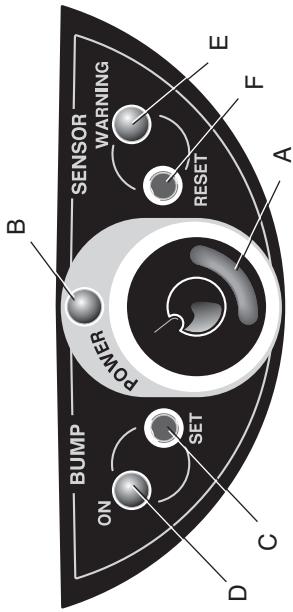
- Level the laser and establish a benchmark.

- Choose your rotation speed.

- Press the Bump Sensor SET Button (C) to activate the second operating mode. The Bump Sensor ON LED Light (D) will illuminate.

- If the laser level is bumped, the Bump Sensor WARNING LED (E) will flash, the dual laser diodes will flash and rotation of the laser head will stop, if the rotary head was spinning.

- To continue working, recheck the laser to your benchmark and re-level if necessary.



To Turn the Laser Off:

Rotate the ON/OFF Knob counterclockwise until it clicks OFF and the laser diodes shut down. The POWER LED Light will no longer be illuminated.

ROTATION SPEEDS

The Variable Speed Knob can be used to improve your visibility or detection of the laser beam. The slower the rotation speed, the brighter the laser line will appear. The faster the rotation speed, the more solid the laser line appears. Always remember to operate your laser in HIGH (600 RPM) speed when working with the Digital Laser Detector.

Remember: Slow Speed = Bright Beam; Fast Speed = Solid Beam.

Bump Sensor

The DW073 Cordless Rotary Laser is equipped with a BUMP SENSOR that will warn you if the laser level has been bumped after set up and leveling. If properly used, this feature can help increase the accuracy of your work by insuring that you continue to work off of the same level/plumb position that you initially set the laser to. The Bump Sensor IS NOT AN OUT OF LEVEL SENSOR. It can not and will not warn you if the laser has gone out of level without being bumped. Check your level/plumb position often to ensure the accuracy of your work.

- Press the Bump Sensor RESET Button (F) to clear the flashing LED light and reset the Bump Sensor circuit. The laser diodes will stop flashing and the rotary head will begin spinning again. The Bump Sensor ON LED Light will remain lit and the tool will remain in this operating mode.

To return the circuit to setting 1, press the Bump Sensor SET Button (C) once again. The ON LED Light (D) will shut off indicating that the laser is in operating mode 1.

Two-Position Pivoting Head

This tool has been designed with a Two-Position Pivoting Head for quick and easy adjustments on the job. The Two-Position Pivoting Head can be used to position the laser for both horizontal (level) and vertical (plumb) applications and to adjust the laser for use with the built in Wall Mount. The Two-Position Pivoting Head is designed to lock the laser level into two predetermined positions (level & plumb) through the use of a spring-loaded detent pin. To make adjustments to the position of the laser head follow these instructions.

1. Locate the Two-Position Pivoting Head Adjustment Lever (A) on the side of the laser level, next to the "DANGER" warning label.
2. To pivot the laser head lift the Adjustment Lever approximately one quarter of the way open, enough to disengage the spring-loaded detent pin holding the laser head in position. DO NOT ATTEMPT to fully open the Adjustment Lever, you may damage the spring-loaded detent mechanism. The Adjustment Lever has been designed to release the Pivoting Head when opened only one quarter of the way.
3. While lifting the Adjustment Lever approximately one quarter of the way open with one hand, pivot the laser head with your other hand until it travels 90° to a stop.
4. Release the Adjustment Lever and make sure that the spring-loaded detent pin locks into place. The laser head should now be locked into position and ready for use.

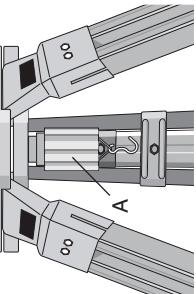
English

5. Follow the instructions for leveling or plumbing the laser. For positioning the tool for use on a wall see the Wall Mount section.
6. To return the laser head to its original position repeat steps 2-4.

Wall, Floor & Tripod Mounts

The DW073 Cordless Rotary Laser has been designed with the most common accessories built directly into the base of the tool. These accessories allow the laser to be mounted onto tripods, positioned directly on the floor, and attached to walls for drop ceiling, installation or other leveling jobs.

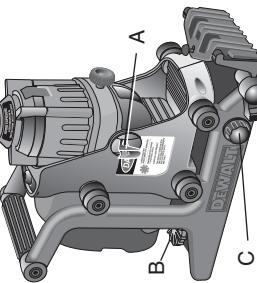
MOUNTING ON A TRIPOD



1. Position the tripod on a smooth and level surface. Set tripod to desired height.
2. Secure the laser to the tripod base by screwing the threaded knob (A) on the tripod into the 5/8" x 11 threaded insert on the bottom of the laser level. **NOTE:** Be sure the tripod you are working with has a 5/8" x 11 threaded screw.
3. Use the Two-Position Pivoting Head Adjustment Lever to pivot the laser head for a level or plumb setting.
4. Follow the instructions for leveling or plumbing the laser.
5. Turn the laser on; adjust rotation speed and controls as needed.

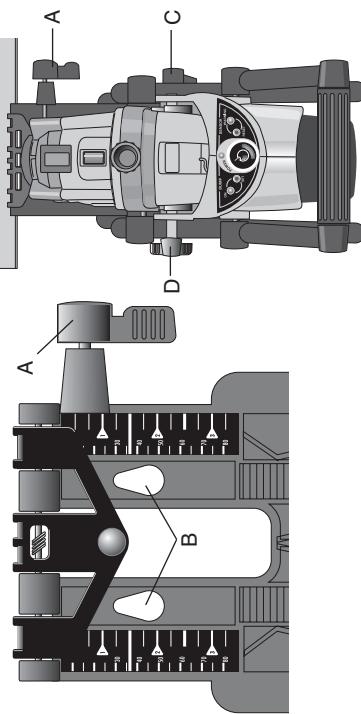
FLOOR MOUNT

- The laser level can be positioned directly on the floor for leveling and plumbing applications. Follow the instructions below for using the floor mount.
1. Place the laser on a relatively smooth and level surface
 2. Use the Two-Position Pivoting Head Adjustment Lever (A) to pivot the laser head for a level or plumb setting.



English

3. Use the Base Leveling Knob (B) located under the battery pack to stabilize the tool and aid in rough leveling.



4. In a plumb orientation the laser can be positioned over a mark and fine adjustments of the laser position can be made using the Base Rack 'N' Pinion Knobs. **TIP:** It may be helpful to turn the power ON and spin the rotary head to set your mark. The Base Rack 'N' Pinion Locking Knob (D) is a wing nut style knob that will lock and unlock the sliding base bracket. The Rack 'N' Pinion Adjustment Knob (C) rotates to slide the tool forward and back. **TIP:** You may need to hold the laser base down while adjustments are made to the tool while on the floor.

5. Follow the instructions for leveling or plumbing the laser.
 6. Turn the laser on if not on already; adjust rotation speed and controls as needed.

WALL MOUNT

The DW073 Cordless Rotary Laser has been designed with a built-in Wall Mount for attaching the tool to wall track to aid in acoustical ceiling installation and other specialty levelling projects. Follow the instructions below for using the Wall Mount.

CAUTION: Before attaching the laser level to wall track ensure that the track is properly secured to the wall.

1. Use the Two-Position Pivoting Head Adjustment Lever to pivot the laser head into a plumb orientation.
2. Rotate the entire tool so that the battery pack is positioned at the bottom of the tool and the Wall Mount Clamp is in position to be attached to the wall track. See illustration at left for proper set-up.
3. With the Base Plate Measuring Scale facing you, rotate the Wall Mount Clamp Locking Knob (A) towards you to open the clamp jaws. Position the clamp jaws around the wall track and rotate the Wall Mount Clamp Locking Knob away from you to close the clamp jaws shut on the track. Ensure that the Wall Mount Clamp Locking Knob is securely locked before proceeding.

CAUTION: Always use a ceiling wire hanger or equivalent material, in addition to the wall mount clamp, to help secure the laser level while mounting it to a wall. Thread the wire through the holes in the roll cage above the Rack 'N' Pinion Adjustment Knob (C) or above the Rack 'N' Pinion Locking Knob (D). Additionally, screws or nails can be used to fasten the tool directly to the wall as a back up. Screw/Nail holes (B) are located in the Base Plate next to the Base Plate Measuring Scales.

4. The tool can be adjusted up and down to the desired offset height for working. To change the height, loosen the Rack 'N' Pinion Locking Knob (D) located to the left of the laser head. **TIP:** You may need to support the weight of the tool while the Rack 'N' Pinion Locking Knob (C) is loosened. Turn the Rack 'N' Pinion Adjustment Knob (C) located to the right of the laser head to move the laser level up and down to set your height. Use the Base Plate Measuring Scale to pinpoint your mark. **TIP:** It may be helpful to turn the power ON and spin the rotary head to set your height. Once you have positioned the laser at your desired offset height, tighten the Rack 'N' Pinion Locking Knob to maintain your mark.
5. Use the Base Levelling Knob (behind the battery) at the bottom of the base plate to aid in positioning the tool against the wall.

- Follow the instructions for leveling the laser. **TIP:** Remember the front leveling knob controls the movement of the bubble in the front vial, the side leveling knob controls the movement of the bubble in the side vial.
- Turn the laser on if not on already; adjust rotation speed and controls as needed.

Horizontal Leveling

- Set the laser on a relatively smooth and level surface such as a Tripod or prepare the laser level to be attached to wall track using the built-in Wall Mount feature. See "Wall Mount" section.
- Use the Two-Position Pivoting Head Adjustment Lever to pivot the laser head to a level setting for projecting a horizontal reference beam. In this position the Manual Head Rotation Button (A) should be pointing up towards the ceiling or sky.
- The leveling knobs (B) control the orientation of the laser head on the metal leveling plates and effect the movement of the bubbles in the vials (C). When the laser level is placed in a level position the front leveling knob controls the movement of the bubble in the front vial. The side leveling knob controls the movement of the bubble in the side vial. **NOTE:** The same leveling rules apply to the tool when being used with the Wall Mount feature.

- To level the laser, the bubbles in both the front and side vials need to be centered within the vials. **TIP:** The more accurately you can center the bubbles within the vials the more accurate your horizontal laser reference beam will be.
- To level the laser, turn the leveling knob towards the bubble until the bubble is centered in the vial. **TIP:** To move the bubble in the front vial to the right, turn the front leveling knob to the left. To

English

- move the bubble in the front vial to the left, turn the leveling knob to the right. Repeat the procedure for the side vial.
- Turn the laser on if not on already; adjust rotation speed and controls as needed.
- To project a level laser reference plane, adjust the rotation speed for preferred visibility. **Remember:** Slow Speed = Bright Beam; Fast Speed = Solid Beam.

Vertical Plumbing

- Set the laser on a relatively smooth and level surface. The tool should be positioned on the large base plate under the battery pack. Utilize the Base Leveling Knob (A) to roughly position the laser.
- Use the Two-Position Pivoting Head Adjustment Lever to pivot the laser head to a plumb setting for projecting a vertical reference beam. In this position the pivoting laser head should be directly over the Wall Mount Clamp and the Control Panel should be facing up towards the ceiling or sky.
- To plumb the laser, only the bubble in the Plumb Vial (D) needs to be centered. **TIP:** The more accurately you can position the bubble within the vial the more accurate your vertical laser reference beam will be.
- Looking over the top of the laser, turn the Plumb Leveling Knob (B) (which is located on the side of the pivoting laser head in this orientation) to move the bubble within the Plumb Vial (D). Turn the plumb leveling knob towards the bubble until the bubble is centered in the vial. **TIP:** Turn the knob in the opposite direction you need the bubble to move.
- Use the Plumb Beam Alignment Knob (C) (which is the knob next to the Plumb Vial) to adjust the plumb laser reference plane over your mark.

English

Laser Enhancement Glasses

The DEWALT Laser Kit includes a pair of Laser Enhancement Glasses. These red lens glasses improve the visibility of the laser beam under bright light conditions or over long distances. These glasses are not required to operate the laser but are helpful. Working best indoors, the lens filters out ambient light and intensifies the red laser dot or line to your eyes.

CAUTION: These glasses are not ANSI approved safety glasses and should not be worn while operating other tools. These glasses do not keep the laser beam from entering your eyes.

DANGER: NEVER STARE DIRECTLY INTO THE LASER BEAM, WITH OR WITHOUT THESE GLASSES.

6. Turn the laser on if not on already; adjust rotation speed and controls as needed.

7. To project a plumb laser reference plane, adjust the rotation speed for preferred visibility. **Remember:** Slow Speed = Bright Beam; Fast Speed = Solid Beam.

Manual Head Rotation Button

The laser has been designed with a protective cap over the rotary head to prevent accidental damage from work site activities. You can still access the rotary head and manually direct the beam to establish or transfer a mark. To manually rotate the laser beam follow the instructions below.

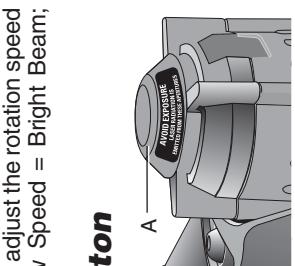
If the laser is turned OFF, rotate the ON/OFF knob clockwise a 1/4 turn or less. Ensure that the laser diodes are powered on and that the rotary head is not spinning. If the laser is ON and spinning, rotate the ON/OFF knob counterclockwise until rotation of the head stops. Depress the spring loaded Manual Head Rotation Button (A) on the top of the protective cap. The button will make contact with the rotary laser head. While maintaining pressure on the Manual Head Rotation Button, you can now turn the button and direct the laser beams in the direction of your mark.

Since the laser has been designed with dual, side by side laser diodes, you may see 2 laser dots on the object you are projecting the beam onto. Marks can be made using either laser dot. Mark the center of the dot.

DO NOT attempt to use the Manual Head Rotation Button while the rotary head is spinning.

While using the Manual Head Rotation Button, it is recommended that you set the Bump Sensor to Setting 1. See Bump Sensor operation.

NOTE: After storing this product in extremely cold conditions, the laser head may not immediately rotate when turned on. The rotary head may be started by depressing and turning the Manual Rotation Button counterclockwise.



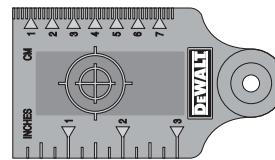
Target Card

The DEWALT Rotary Laser Kit includes a Laser Target Card to aid in locating and marking the laser beam. The target card enhances the visibility of the laser beam as the beam crosses over the card. The card is marked with inch and metric scales. The laser beam passes through the red plastic and reflects off of the reflective tape on the reverse side. The magnets at the top hold the target card to ceiling track or steel studs to determine plumb and level positions.

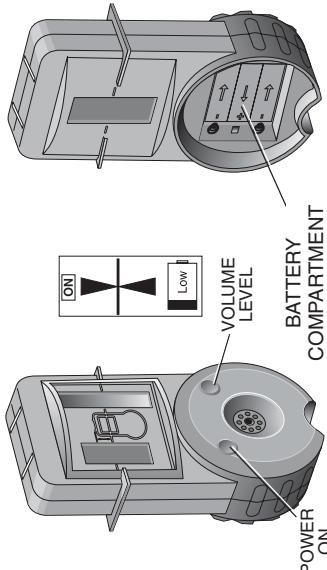
Digital Laser Detector

The DEWALT Digital Laser Detector enables you to locate a laser beam emitted by a Rotary Laser in bright light conditions or over long distances. The detector can be used in both indoor and outdoor situations where it is difficult to see the laser beam. The detector is not for use with non-rotating lasers.

The detector gives both visual and audio signals as to the location of the laser beam as the beam crosses over the detector. The DEWALT Digital Laser Detector is compatible with most rotary lasers on the



market today. The clamp attaches the Digital Laser Detector to grade rods, leveling poles, wall studs or posts. The detector can also be mounted to ceiling track by attaching the magnets on the top of the detector to the track.



If this laser kit contains a DEWALT Digital Laser Detector, a separate instruction manual has been included. For proper use and operation read and understand the Detector manual before use.

Applications

The DW073 Cordless Rotary Laser is a versatile and accurate tool that can be used for both interior and exterior construction and remodeling projects. The laser level can be adjusted and positioned for use on dozens of horizontal (level) and vertical (plumb) applications. A few of the most common applications are listed below. General user steps are listed for each application to serve as a guide. They are not intended to provide you with detailed instructions to complete each leveling or plumbing project.

Ceiling Installation

1. Follow the instructions in this manual for operating the built-in Wall Mount.
2. Securely attach the tool to the wall track and adjust the laser to your offset height.

3. Follow the instructions for leveling the laser.
TIP: Remember the front leveling knob controls the front bubble vial, the side leveling knob controls the side bubble vial.

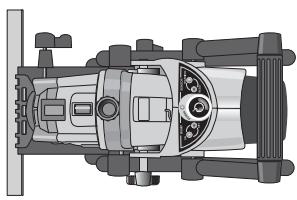
4. Turn the laser on if not on already; adjust rotation speed and controls as needed.
Remember: Slow Speed = Bright Beam; Fast Speed = Solid Beam.

5. Use the Laser Target Card to help you find the rotating laser beam reference plane. Attach the magnetic base of the Laser Target Card to the ceiling track cross sections. **TIP:** Wear the Laser Enhancement Glasses to help improve the visibility of the laser beam to your eyes.
6. You can now begin to accurately level the ceiling grid/track for ceiling installation.

Wall Layout

1. Follow the instructions in this manual for operating the built-in Floor Mount.
2. Use the Two-Position Pivoting Head Adjustment Knob to pivot the laser head for a plumb setting.
3. Position the laser over a predetermined benchmark on the floor and adjust the tool by utilizing the Rack 'N Pinion Adjustment Knobs.
4. Follow the instructions for plumbing the laser.
5. Turn the laser on if not on already; adjust rotation speed and controls as needed. **Remember:** Slow Speed = Bright Beam; Fast Speed = Solid Beam.
6. Use the Laser Target Card to help you find the rotating laser beam reference plane and to transfer your mark. **TIP:** Wear the Laser Enhancement Glasses to help improve the visibility of the laser beam to your eyes.
7. You can now begin to plumb and layout your walls by accurately transferring the reference points on the floor to the ceiling.

English



English

Foundations

1. Follow the instructions in this manual for setting up the laser on a Tripod.
2. Use the Two-Position Pivoting Head Adjustment Knob to pivot the laser head for a level setting.
3. Follow the instructions for leveling the laser.
4. Turn the laser on if not on already; adjust rotation speed and controls as needed. **Remember:** When working with the DEWALT Digital Laser Detector set the variable control speed to the highest setting (600 RPM).
5. Mount the DEWALT Digital Laser Detector to the Detector Clamp and attach the clamp onto a Grade Rod or other leveling rod.
6. Adjust the clamp to the proper height on the rod for detecting the rotating laser beam and for leveling the foundation.
7. You can now begin to level the area for the foundation.

Deck Building

1. Follow the instructions in this manual for setting up the laser on a Tripod.
2. Use the Two-Position Pivoting Head Adjustment Knob to pivot the laser head for a level setting.
3. Follow the instructions for leveling the laser.
4. Turn the laser on if not on already; adjust rotation speed and controls as needed. **Remember:** When working with the DEWALT Digital Laser Detector set the variable control speed to the highest setting (600 RPM).
5. Use the DEWALT Digital Laser Detector to locate the rotating laser beam and to set your marks on the posts.
6. You can now begin to lay out and level the deck.

Maintenance

- To maintain the accuracy of your work, have the laser checked often to make sure it is properly calibrated.
 - Calibration checks and other maintenance repairs can be performed by DEWALT service centers. Two free calibration checks are included under the DEWALT One Year Free Service Contract.
 - When not in use, store the laser in the kit box provided.
 - Do not store your laser in the kit box if the laser is wet. Allow laser to air dry and dry exterior parts with a soft dry cloth.
 - Do not store your laser at temperatures below 0° F or above 105° F.
- A CLEANING:** Exterior plastic parts may be cleaned with a damp cloth and mild detergent. Although these parts are highly solvent resistant, NEVER use solvents. Use a soft dry cloth to remove moisture from tool and accessories before storage. Never use compressed air to clean the laser.

Field Calibration Check

This section provides instructions by which you can perform simple field calibration checks of your DEWALT Rotary Laser. These checks cannot take the place of professional calibration done by a DEWALT service center.

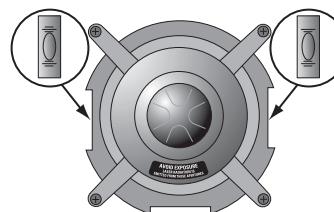
These instructions will help you check for the three types of out-of-level errors.

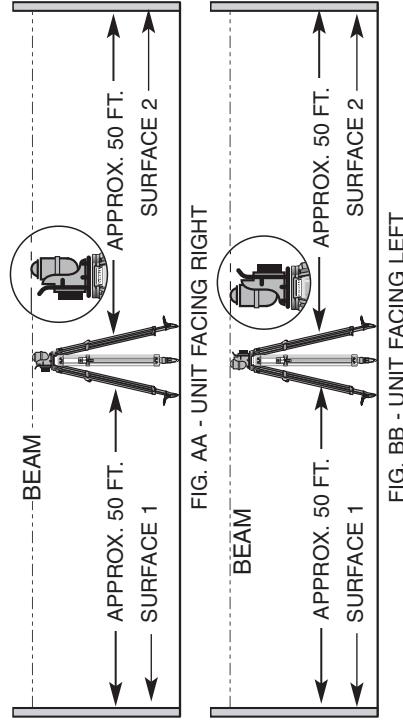
- **Tilt Error** - checks that rotation of the head in your Rotary Laser is perfectly level.
- **Cone Error** - checks that the laser beams are not at an angle relative to the level head.
- **Plumb Error** - checks the calibration of the plumb leveling vial.

TILT ERROR CHECKS

Horizontal Checking for Front to Back Tilt Error

- Set up a tripod midway between 2 vertical surfaces about 100' apart.





English

- Rotate the Laser 180° (Fig. BB)
- Level the Laser again, following the procedure in the "Horizontal Leveling" section of this manual.
- Turn the unit on if it is not already on, so the lasers are on and rotating.
 - Go to surface #1 and mark the center of the beam.
 - Go to surface #2 and mark the center of the beam.
 - Measure the difference between the marks on surface #1.
 - Measure the difference between the marks on surface #2.
 - The difference between the marks on surface #1 must equal the difference between the marks on surface #2. If these are not equal, there was user set up or marking error.
 - If the difference between the marks on surface #1 is 1/4" or less, the Laser is properly calibrated.
 - If the difference between the marks on surface #1 is more than 1/4", have your Rotary Laser calibrated at a DEWALT service center.

- #### HORIZONTAL CHECKING FOR SIDE-TO-SIDE TILT ERROR
- Set up tripod midway between 2 vertical surfaces 100' from each other.
 - Mount your Rotary Laser on a tripod so that it is aimed side-to-side toward the vertical surfaces. (next page)
 - Level the Laser, following the procedure in the "Horizontal Leveling" section of this manual.
 - **Quick Check:**
 1. Compare the position of the bubbles in the front and rear vials (Fig. AA).
 2. If the two bubbles are not in about the same position in their vials, (both about centered) have your Rotary Laser calibrated at a DEWALT service center.
 - Turn the unit on so that the lasers are on and rotating.
 - Go to surface #1 and mark the center of the beam. If it is difficult to see the beam, use your Laser Enhancement Glasses, Target Card or optional DW0732 Digital Laser Detector.
 - Go to surface #2 and mark the center of the beam.
 - Loosen the screw holding the Laser to the tripod but do not remove the Laser.
 - Rotate the Laser 180°.
 - Level the Laser again, following the procedure in the "Horizontal Leveling" section.

English

- Turn the unit on if not already on, so that the lasers are on and rotating.
- Go to surface #1 and mark the center of the beam.
- Go to surface #2 and mark the center of the beam.
- The difference between the marks on surface #1 must equal the difference between the marks on surface #2. If these are not equal, there was user set up or marking error.
- If the difference between the marks on surface #1 is 1/4" or less, the Laser is properly calibrated.
- If the difference between the marks on surface #1 is more than 1/4", have your Rotary Laser calibrated at a DEWALT service center.

CONE ERROR CHECK

- Your DEWALT Rotary Laser contains 2 laser diode assemblies. It is highly unlikely that both lasers would have shifted by identical amounts. The easiest way to test for possible "cone error" is to compare the two laser beams.
- Level the laser, following instructions in the "Horizontal Leveling" section of this manual.

Quick Check:

- 1. Turn the unit on so that the lasers are on and rotating.
- 2. You should see a single red line on a vertical surface. If you see a double line, have your Rotary Laser calibrated by a DEWALT service center.
- Turn unit on so that the lasers are on but NOT rotating.
- Using the Manual Rotation Button, rotate the head so that the lasers appear as two dots on a vertical surface about 25 feet away.
- Compare the vertical position of the center of each laser beam. The centers should be within 3/32"(vertically) of each other.
- If the centers of the two beams differ by more than 3/32" (vertically), then have your Rotary Laser calibrated at a DEWALT service center.

PLUMB ERROR CHECK

- Set up a tripod about 25 feet from a vertical surface.
- Mount your Rotary Laser on the tripod.
- Following the procedure in the "Two Position Pivoting Head" section of this manual, set the Rotary Laser head in the plumb position.
- Hang a plumb bob from the vertical surface.
- Level the laser, following instructions in the "Vertical Plumbing" section of this manual.
- Turn the unit on so that the lasers are on and rotating.
- Rotate the laser on the tripod so that the beam is in the line with the plumb bob.
- Ensure that the laser is still level.
- If the beam lies along the same line as the plumb bob string, then the calibration is acceptable.
- If the beam does not lie along the same line as the plumb bob string, have your Rotary Laser calibrated at a DEWALT service center.

Accessories

Recommended accessories for use with your tool are available at extra cost from your local service center. If you need any assistance in locating any accessory, please contact DEWALT Industrial Tool Co., 701 East Joppa Road, Baltimore, MD 21286 or call 1-800-4-DEWALT (1-800-433-9258). See our catalog on the World Wide Web at www.DEWALT.com.

- ▲ **CAUTION:** The use of any non-recommended accessory may be hazardous.

Repair

To assure product SAFETY and RELIABILITY, repairs, maintenance and adjustment should be performed by certified service centers or other qualified service organizations, always using identical replacement parts.

Three Year Limited Warranty

DEWALT will repair, without charge, any defects due to faulty materials or workmanship for three years from the date of purchase. This warranty does not cover part failure due to normal wear or tool abuse. For further detail of warranty coverage and warranty repair information, visit www.dewalt.com or call 1-800-4-DEWALT (1-800-433-9258). This warranty does not apply to accessories or damage caused where repairs have been made or attempted by others. This warranty gives you specific legal rights and you may have other rights which vary in certain states or provinces.

In addition to the warranty, DEWALT tools are covered by our:

1 YEAR FREE SERVICE

DEWALT will maintain the tool and replace worn parts caused by normal use, for free, any time during the first year after purchase.

2 YEARS FREE SERVICE ON XRTM BATTERY PACKS

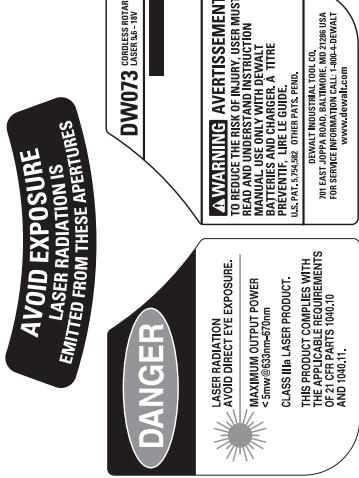
DC9096, DC9091 and DC9071

90 DAY MONEY BACK GUARANTEE

If you are not completely satisfied with the performance of your DEWALT Power Tool, Laser, or Nailer for any reason, you can return it within 90 days from the date of purchase with a receipt for a full refund – no questions asked.

LATIN AMERICA: This warranty does not apply to products sold in Latin America. For products sold in Latin America, see country specific warranty information contained either in the packaging, call the local company or see website for warranty information.

FREE WARNING LABEL REPLACEMENT: If your warning labels become illegible or are missing, call 1-800-4-DEWALT for a free replacement.



English

Troubleshooting Guide

This guide is intended to assist you in determining why the laser is not operating to your expectations. These are some of the most commonly asked questions or observances. If you still have questions or problems with your DEWALT laser after completely reading through this Troubleshooting Guide and instruction manual, call our toll free Hot Line at 1-800-4-DEWALT or visit one of our service centers.

THE BATTERY WILL NOT LOCK IN PLACE
See "Installing the Battery Pack"

THE LASER WILL NOT TURN ON

Ensure that a fully charged battery is properly inserted into the tool. **TIP:** See "Installing the Battery Pack" section. Rotate the ON/OFF VARIABLE SPEED Knob clockwise to turn the power on. **TIP:** See "Control Panel" section. If the laser still doesn't turn on, take the tool to a DEWALT service center.

English

AFTER TURNING THE LASER ON, 2 LASER DOTS ARE PROJECTED FROM THE ROTARY HEAD

The DW073 Cordless Rotary Laser has been designed with dual, side by side laser diodes. Two diodes allows the laser to avoid blind spots which could potentially be created by the protective cap over the rotary head and also produce an extremely bright beam when the rotary laser head is spun.

THE LASER IS PROJECTING 2 LASER LINES WHEN THE LASER HEAD IS ROTATED

Take the laser to a DEWALT service center for calibration.

THE POWER LED LIGHT IS FLASHING, THE ROTARY HEAD HAS STOPPED SPINNING AND THE LASER DIODES HAVE SHUT DOWN.

This indicates that the battery pack needs to be recharged. **TIP:** See "Removing the Battery Pack" and "Charging Procedures."

THE BUMP SENSOR WARNING LED LIGHT IS FLASHING

See "Bump Sensor" section for operating instructions.

THE BUMP SENSOR WILL NOT TURN THE LASER OFF AFTER THE TOOL HAS GONE OUT OF LEVEL

The Bump Sensor is NOT AN OUT OF LEVEL SENSOR. See "Bump Sensor" section.

THE ROTATING LASER BEAM IS DIFFICULT TO SEE INDOORS

Ambient light conditions will influence the visibility of the laser beam. To aid in beam visibility, adjust the rotation speed using the ON/OFF VARIABLE SPEED SWITCH. **Remember:** Slow Speed = Bright Beam; Fast Speed = Solid Beam. Wearing the Laser Enhancement Glasses can also help you see the beam better.

I NEED TO ADJUST THE LASER FOR A VERTICAL / PLUMB ORIENTATION

See "Two-Position Pivoting Head" section.

I NEED TO ADJUST THE LASER FOR MOUNTING ON A WALL

See "Wall Mount" section.

THE LASER ROCKS WHEN POSITIONED ON THE FLOOR

The laser is designed to sit on 3 contact points for maximum stability. Two of these contact points are stationary while the third is adjustable. To roughly position the tool on the floor adjust the Base Leveling Knob, which is located under the battery pack.

I NEED TO STOP THE ROTARY HEAD ROTATION TO DIRECT THE LASER DOT ONTO A MARK OR TO SET A MARK

See "Manual Head Rotation" section.

THE BUBBLE(S) IN THE VIAL(S) WILL NOT MOVE WHEN ATTEMPTING TO LEVEL THE LASER

The tool must be positioned on a relatively smooth and level surface before being leveled. The laser cannot be leveled if the tool is set up outside of its leveling range. **TIP:** Use the Base Leveling Knob to roughly level the tool before attempting to level the laser with the leveling knobs. **TIP:** Make sure that the Two-Position Pivoting Head is locked into either the plumb or level setting before attempting to level the laser. See "Two-Position Pivoting Head" section.

I CAN ONLY ADJUST THE BUBBLE IN THE PLUMB VIAL WHEN ATTEMPTING TO PROJECT A VERTICAL LASER LINE

See "Vertical Plumbing" section for instructions on projecting a vertical laser line.

COLD STORAGE INFORMATION

After storing this product in extremely cold conditions, the laser head may not immediately rotate when turned on. The rotary head may be started by depressing and turning the Manual Rotation Button counter-clockwise.