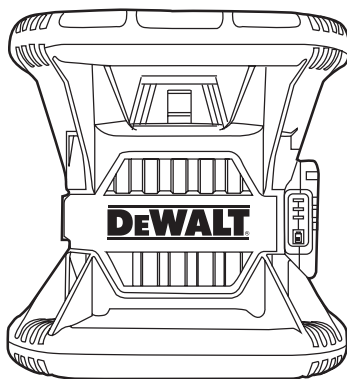
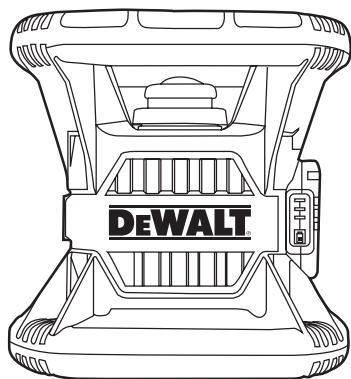


# DEWALT®



**Instruction Manual**  
**Guide d'utilisation**  
**Manual de instrucciones**  
**Manual de Instruções**



**DW074LR, DW079LR, DW079LG**

**Rotary Laser**  
**Laser rotatif**  
**Láser rotativo**  
**Laser Rotativo**

**[www.DEWALT.com](http://www.DEWALT.com)**

**If you have questions or comments, contact us.**  
**Pour toute question ou tout commentaire, nous contacter.**  
**Si tiene dudas o comentarios, contáctenos.**  
**Dúvidas? Visite-nos na Internet em [www.DEWALT.com.br](http://www.DEWALT.com.br)**

**1-800-4-DEWALT**

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Fig. A

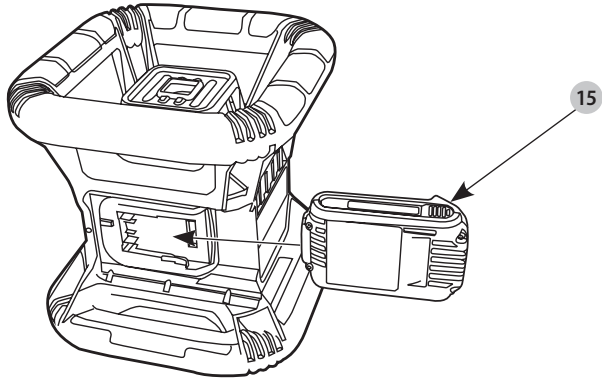


Fig. B

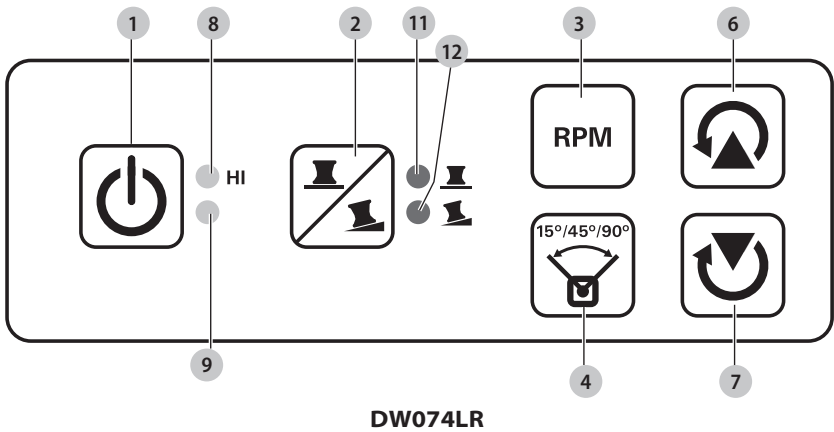
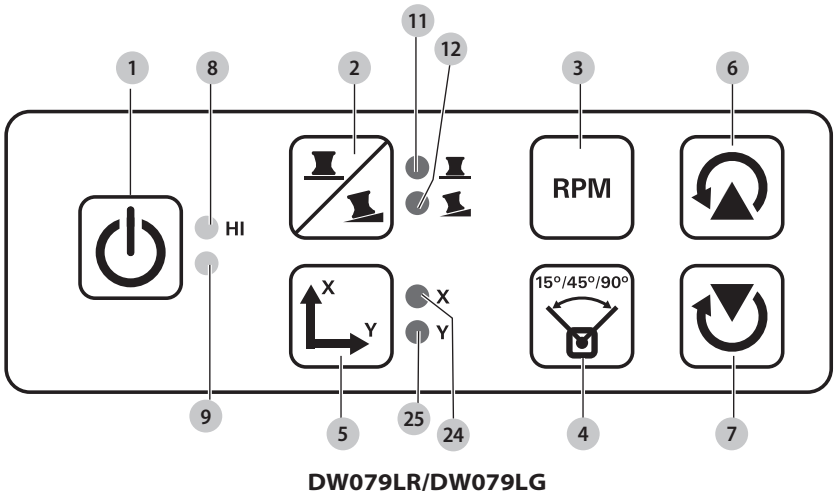
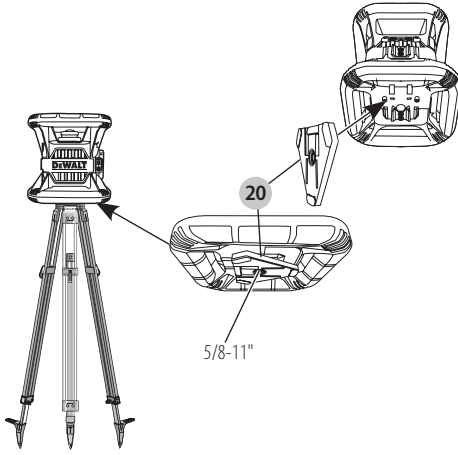
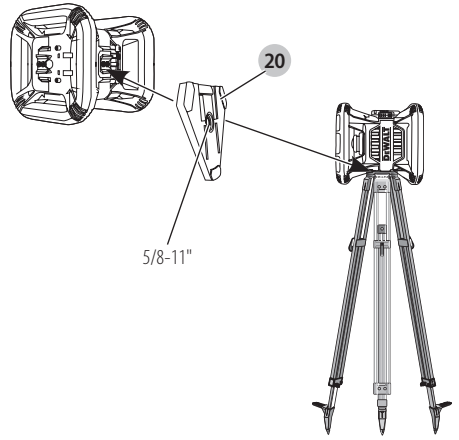


Fig. C

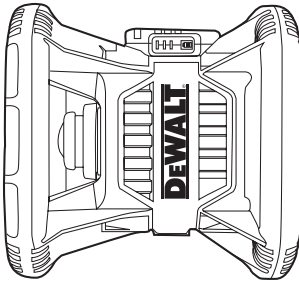


PLUMB MODE/MODE APLOMB /MODALIDAD DE PLOMADA/MODO NIVELAMENTO VERTICAL

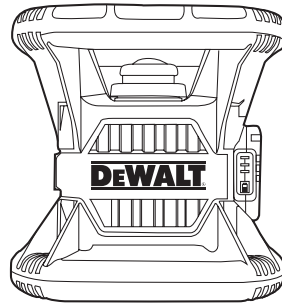


LEVEL MODE/MODE NIVEAU /MODALIDAD DE NIVEL/MODO DE NIVELAMENTO

Fig. D

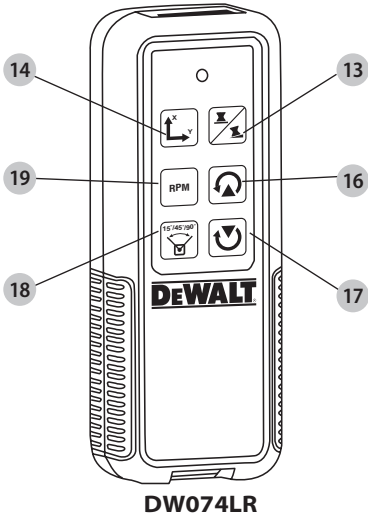


PLUMB MODE  
MODE APLOMB  
MODALIDAD DE PLOMADA  
MODO NIVELAMENTO  
VERTICAL



LEVEL MODE  
MODE NIVEAU  
MODALIDAD DE NIVEL  
MODO DE  
NIVELAMENTO

Fig. E



DW074LR

Fig. F

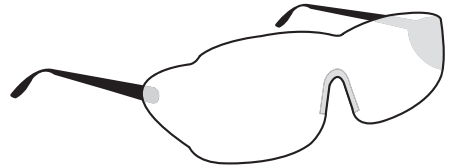


Fig. G

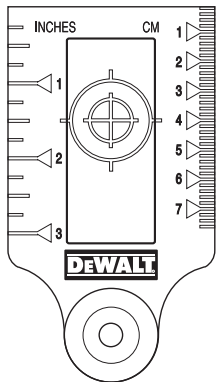


Fig. H

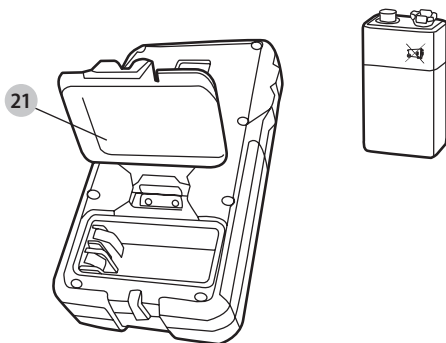


Fig. I

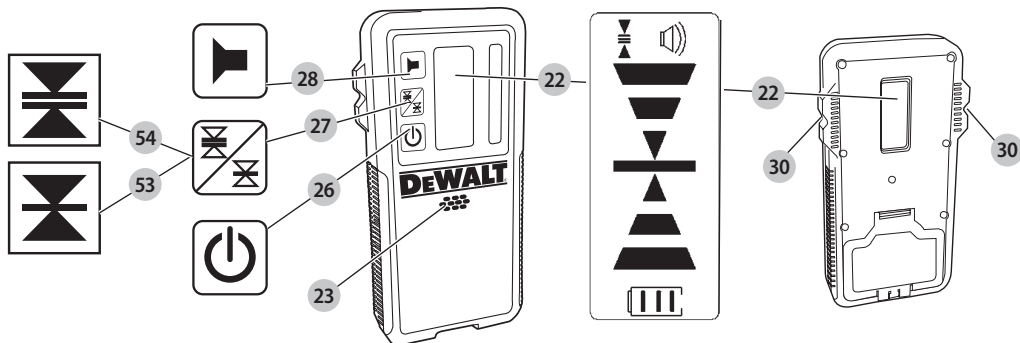


Fig. J

### INDICATORS/INDICATEURS /INDICADORES/INDICADORES






	Above Grade/ Au-dessus du niveau / Por encima del nivel Acima do grau	Slightly Above Grade/ Légèrement au-dessus du niveau / Ligeramente por encima del nivel/ Ligeiramente acima do grau	On Grade/ Au niveau / En nivel/ Um grau	Slightly below Grade/ Légèrement au-dessous du niveau / Ligeramente por debajo del nivel/ Ligeiramente abaixo do grau	Below Grade/ Au-dessous du niveau / Por debajo del nivel/ Abaixo do grau
audible signals/ signal sonore / señales audítilas/ sinais audíveis	fast beep / bip rapide / bip rápido/ Bipe rápido	fast beep / bip rapide / bip rápido/ Bipe rápido	steady tone/ tonalité constante / tono constante/ Tom estável	slow beep/ bip lent / bip lento/ Bipe lento	slow beep/ bip lent / bip lento/ Bipe lento
display /cons/ tône affiche/ ícone en pantalla/ ícone da tela					

Fig. K

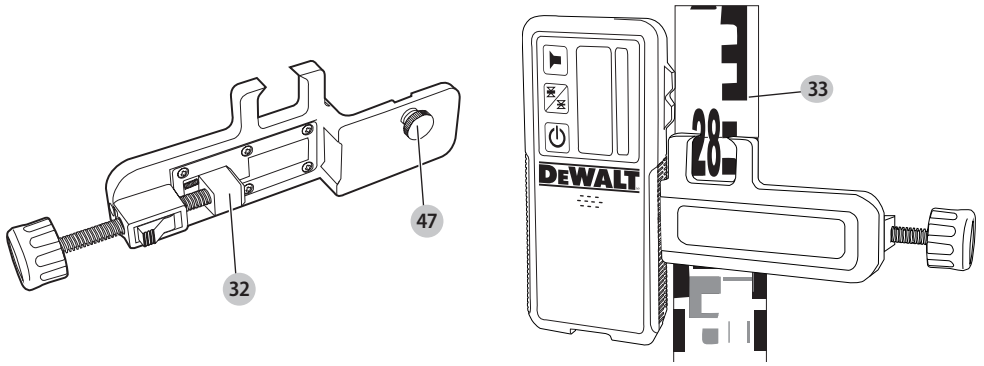


Fig. L

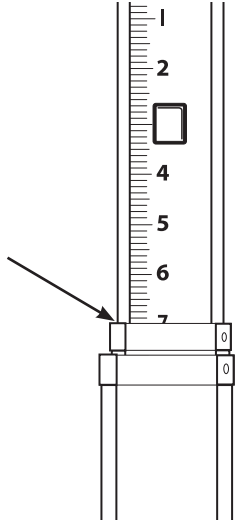


Fig. M

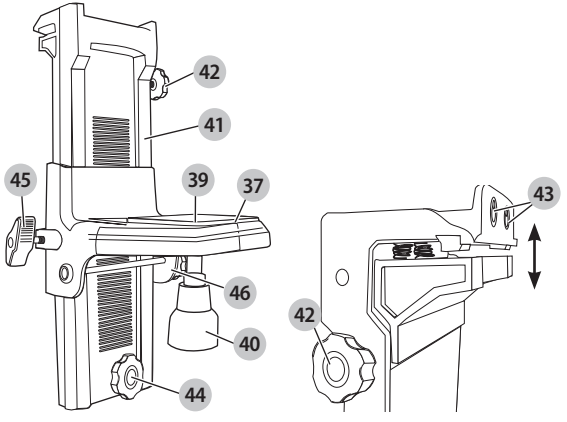


Fig. N

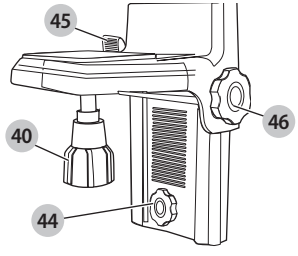


Fig. O

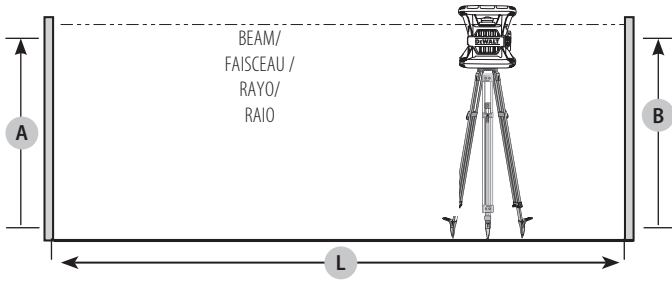


Fig. P

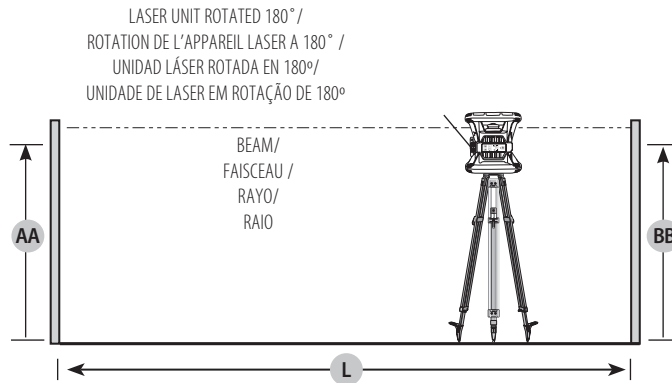


Fig. Q

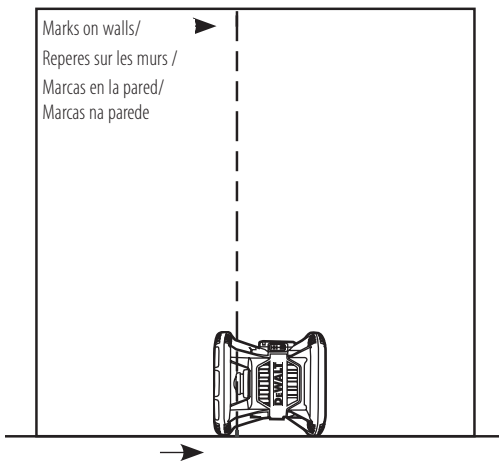
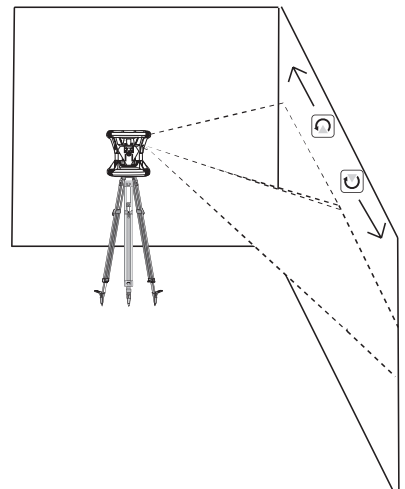


Fig. R




## Definitions: Safety Alert Symbols and Words

This instruction manual uses the following safety alert symbols and words to alert you to hazardous situations and your risk of personal injury or property damage.

 **DANGER:** Indicates an imminently hazardous situation which, if not avoided, **will** result in **death or serious injury**.



 **WARNING:** Indicates a potentially hazardous situation which, if not avoided, **could** result in **death or serious injury**.

 **CAUTION:** Indicates a potentially hazardous situation which, if not avoided, **may** result in **minor or moderate injury**.

 (Used without word) Indicates a safety related message.

**NOTICE:** Indicates a practice **not related to personal injury** which, if not avoided, **may** result in **property damage**.


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).

  **Warning:** To reduce the risk of injury, user must read instruction manual.

## Safety Instructions for Lasers


 **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

 **WARNING! Laser Radiation Exposure.** Do not disassemble or modify the laser level. There are no user serviceable parts inside. Serious eye injury could result.

 **WARNING: Hazardous Radiation.** Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

- Do not operate the laser 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.
- Use the laser only with the specifically designated batteries. Use of any other batteries may create a risk of fire.
- Store idle laser out of reach of children and other untrained persons. Lasers are dangerous in the hands of untrained users.
- Use only accessories that are recommended by the manufacturer for your model. Accessories that may be suitable for one laser, may create a risk of injury when used on another laser.
- Tool service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel may result in injury. To locate your nearest DeWALT service center call 1-800-4-DeWALT (1-800-433-9258) or go to <http://www.DeWALT.com> on the Internet.
- Do not use optical tools such as a telescope or transit to view the laser beam. Serious eye injury could result.
- Do not place the laser in a position which may cause anyone to intentionally or unintentionally stare into the laser beam. Serious eye injury could result.
- Turn the laser off when it is not in use. Leaving the laser on increases the risk of staring into the laser beam.
- Do not position the laser near a reflective surface which may reflect the laser beam toward anyone's eyes. Serious eye injury could result.
- Do not operate the laser around children or allow children to operate the laser. Serious eye injury may result.
- Do not remove or deface warning labels. Removing labels increases the risk of exposure to radiation.
- Position the laser securely on a level surface. Damage to the laser or serious injury could result if the laser falls.

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

 **WARNING! DO NOT DISASSEMBLE THE ROTARY LASER.** There are no user serviceable parts inside. Disassembling the rotary laser will void all warranties on the product. Do not modify the product in any way. Modifying the tool may result in hazardous laser radiation exposure.

- The label on your tool may include the following symbols.



V .....volts  
 mW .....milliwatts  
 .....laser warning symbol

nm .....wavelength in nanometers  
 3R .....Class 3R Laser

**Warning Labels**

For your convenience and safety, the following label is on your laser.



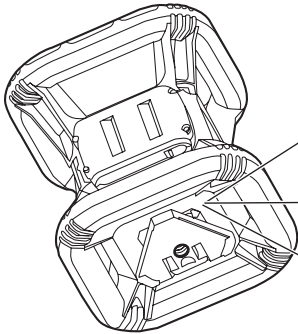
**WARNING: To reduce the risk of injury, user must read instruction manual.**








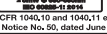



**WARNING: LASER RADIATION. DO NOT STARE INTO BEAM. Class 3R Laser Product**



**AVOID EXPOSURE -LASER RADIATION IS EMITTED FROM THIS APERTURE**



 <b>DW074LR</b> www.DEWALT.com		
SER. <input type="text"/> <small>Complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007.</small>		
 <b>DW079LG</b> www.DEWALT.com		
SER. <input type="text"/> <small>Complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007.</small>		
 <b>DW079LR</b> www.DEWALT.com		
SER. <input type="text"/> <small>Complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007.</small>		

**Laser Information**

The DW074LR and DW079LR/LG Cordless Rotary Lasers are CLASS 3R laser products and comply with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to laser notice No. 50, dated June 24, 2007.

- Conforms to UL STDS 61010-1 & 2595
- Certified to CSA STD C22.2 No. 61010-1
- Complies with IEC 60825-1:2014

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 guarantee that interference will not

## ENGLISH

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.

### Canada, Industry Canada (IC) Notices

Class B digital circuitry of this device complies with Canadian ICES-003. This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: 1) this device may not cause interference, and 2) this device must accept any interference, including interference that may cause undesired operation of the device.

## Specifications

SKU	DW074LR	DW079LR	DW079LG
Laser Wavelength	630-680nm	630-680nm	515-530nm 630-680nm
Laser Power/Class	≤5mw / CLASS 3R	≤5mw / CLASS 3R	≤5mw / CLASS 3R
Rotation Speed	150, 300, 600, 1200 RPM	150, 300, 600, 1200 RPM	150, 300, 600, 1200 RPM
Self-Leveling Range	± 5°	± 5°	± 5°
Indoor Visible Range	150' (45 m) diameter	200' (60 m) diameter	250' (80 m) diameter
Range with Detector	1500' (450 m) diameter	2000' (600 m) diameter	2000' (600 m) diameter
Leveling Accuracy	± 1/8" per 100' (± 3 mm per 30 m)	+/- 1/16" per 100' (+/- 1.5 mm per 30m)	+/- 1/16" per 100' (+/- 1.5 mm per 30m)
Power Source	20V DeWALT batteries	20V DeWALT batteries	20V DeWALT batteries
Operating Temperature	23°F to 122°F (-5°C to 50°C)	23°F to 122°F (-5°C to 50°C)	23°F to 122°F (-5°C to 50°C)
Storage Temperature	-4°F to 158°F (-20°C to 70°C)	-4°F to 158°F (-20°C to 70°C)	-4°F to 158°F (-20°C to 70°C)
Environmental	Water resistant	Water resistant	Water resistant

## Important Safety Instructions for All Battery Packs

When ordering replacement battery packs, be sure to include catalog number and voltage. Consult the chart at the end of this manual for compatibility of chargers and battery packs.

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

### Batteries and Power

- This DeWALT rotary laser will accept all DeWALT 20 volt lithium ion batteries, but is built to best resist damage during a fall when used with the following batteries: All 1.5Ah & 2Ah DeWALT 20 volt lithium ion batteries.
- Consult the chart at the end of this manual for compatibility of chargers and battery packs.
- Refer to the **Battery Safety Manual** for safety instructions.

### Battery Installation / Removal and Charging

#### To install battery pack (Fig. A)

Using the 20V DeWALT Rechargeable Pack:

1. Install the 20V DeWALT Rechargeable Battery pack as shown in Figure A.
2. Depress the battery release button **15** on the battery.
3. Slide the battery pack into the track firmly.
4. Release the battery release button on the battery.

#### To Remove the battery pack

1. Depress the battery release button on the battery.
2. Slide the battery pack out of the track
3. Release the battery release button on the battery.
4. To recharge the battery pack, insert it into the charger as described in the **Battery Safety Manual**.



**WARNING:** Batteries can explode, or leak, and can cause injury or fire. To reduce this risk. Refer to **Battery Safety Manual** for safety instructions.

### Storage Recommendations

1. The best storage place is one that is cool and dry away from direct sunlight and excess heat or cold.
2. Long storage will not harm the battery pack or charger. Under proper conditions, they can be stored for 5 years or more.

### SAVE THESE INSTRUCTIONS FOR FUTURE USE

## Chargers

Your tool uses a DeWALT 20 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.



#### WARNING:

- **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.
- Carefully follow all instructions and warnings on the battery label and package and accompanying **Battery Safety Manual**.

## Personal Safety

- **Stay alert, watch what you are doing and use common sense when operating a laser product. Do not use tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating laser products may result in serious personal injury.
- Use appropriate personal protective equipment including eye protection when working in a construction environment.

## Tool Use and Care

- **Do not use tool if switch does not turn it on or off.** Any tool that cannot be controlled with the switch is dangerous and must be repaired.
  - **Store idle laser products out of the reach of children and do not allow persons unfamiliar with the laser product or these instructions to operate the laser product.** Laser products are dangerous in the hands of untrained users.
  - **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool, may become hazardous when used on another tool.
- To ensure the accuracy of your work, check the laser calibration often. Refer to **Field Calibration Check** under **Laser Maintenance**.
  - Before attempting to use the laser, make sure the tool is positioned on a relatively smooth, secure surface.
  - Always mark the center of the laser line or dot. If you mark different parts of the beam at different times you will introduce error into your measurements.
  - 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 indoors, 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 Laser Enhancement Glasses and/or use a Laser Target Card to help find the beam.
  - Extreme temperature changes can cause movement or shifting of building structures, metal tripods, equipment, etc., which can effect accuracy. Check your accuracy often while working.
  - When working with the DeWALT Digital Laser Detector, set the laser's rotation speed to the fastest setting.
  - If the laser is dropped or has suffers a sharp blow, have the calibration system checked by a qualified service center before using the laser.

## Service

- **Have your laser product serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the laser product is maintained.

To locate your nearest DeWALT service center call 1-800-4-DeWALT (1-800-433-9258) go to <http://www.DeWALT.com> on the Internet.

## The RBRC® Seal

The RBRC® (Rechargeable Battery Recycling Corporation) Seal on the nickel cadmium, nickel metal hydride or lithium-ion batteries (or battery packs) indicates that the costs to recycle these batteries (or battery packs) at the end of their useful life have already been paid by DeWALT. In some areas, it is illegal to place spent nickel cadmium, nickel metal hydride or lithium-ion batteries in the trash or municipal solid waste stream and the Call 2 Recycle® program provides an environmentally conscious alternative.

Call 2 Recycle, Inc., in cooperation with DeWALT and other battery users, has established the program in the United States and Canada to facilitate the collection of spent nickel cadmium, nickel metal hydride or lithium-ion batteries. Help protect our environment and conserve natural resources by returning the spent nickel cadmium, nickel metal hydride or lithium-ion batteries 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 Call 2 Recycle, Inc.



## OPERATION

### Operating Tips

- To extend battery life per charge, turn the laser off when it is not in use.



## Laser Control Panel (Fig. B)

The laser is primarily controlled by the power button **1**, the mode button **2**, the speed button **3** and the scan mode button **4**. These features are subsequently modified using the Axis selection button **5** (DW079LR/LG only), and two direction/elevation adjustment buttons (**6**, **7**). The direction/elevation adjustment buttons control the rotational direction of the laser head as well as adjust the elevation of the beam when the unit is in slope mode.

Four LED indicator lights are on the control panel: power **9**, X-axis leveling **24** (DW079LR/LG only), Y-axis leveling **25** (DW079LR/LG only) and Hi mode (anti drift) **8**.

### Turning the Laser on (Fig. A, B)

1. Insert the fully charged 20V battery pack as shown in Figure A.
2. Gently press the power button **1** to power the laser on.



- The power LED indicator light **9** will illuminate and the unit will self level. The beam rotates once level at the default settings of 600 RPM in the clockwise direction.
- Self leveling mode is activated automatically after the unit is powered on.
- Hi Mode (Anti- Drift) is activated automatically after 10 sec. The Hi LED **8** will illuminate when active.
- Press the speed/rotation button **3** to adjust the rotation speed. The direction can be changed using buttons **6** and **7**.

## ENGLISH

- The beam can be set to scan in 0°, 15°, 45° or 90° degree mode using button **4**.

## Laser Control Panel Buttons (Fig. B, R)

### Power Button

To completely power the laser unit off, the power button on the control panel of the laser unit must be pressed for 3 sec. The laser unit will also automatically power off if it is left in Sleep Mode for 8 hours.

**NOTE:** Press the remote control power button to put the laser unit into Sleep Mode. In Sleep Mode all laser unit functions shut off except for a periodic blink from the power LED on the control panel of the laser unit. Press the remote control power button again to “wake up” the laser unit.

### Speed/Rotation Button

The speed button **3** is used to adjust the rotation speed of the laser beam through its 4 preset speeds.

The head speed will cycle through 4 speeds, then repeat the sequence as the speed/rotation button is pressed.

**NOTE:** The speed/rotation button performs the same function as the speed/rotation button on the remote control.

### Scan Mode Button

The scan mode button **4** is used to make the laser head sweep back and forth, creating a short, bright laser line. This short line is much brighter and more visible than when the unit is in full rotation mode.

#### Using Scan Mode:

- To enter Scan Mode, push and release the scan mode button **4**. To cycle through the scan angles, continue to press the button until you reach the angle desired. Repeat the sequence to change angles.
- The direction of the scan zone can be controlled with the arrow buttons (**6**, **7**) on the laser unit control panel or the remote control.

### Slope Mode Button

- To activate Slope Mode press the laser keypad slope mode button **2**.
- To return to self leveling mode and re-engage full self-leveling, press and hold the mode button **2** again.

#### Setting the Slope Direction

When Slope Mode is activated, the unit automatically engages the X- Axis. This allows the operator to slope the laser in the direction of the X-Axis, as indicated by the “gunsights” on the rollcage.

The LED indicator light on the laser unit control panel (Fig. B, **11**, **12**) will indicate the slope direction that is selected. The selected axis is identified by LED lights **24**, **25**.

**DW079LR/LG only:** In certain situations, it may be desirable to slope the laser in the Y-axis. The direction of Slope Mode can be changed back and forth between the Y- and X-axes by pressing the X-Y axis button **5** on the keypad.

#### Setting the Amount of Slope

Once Slope Mode is activated and the desired axis is active the amount of slope can be adjusted as follows:

- Use the laser control panel up and down arrow buttons (Fig. B, **6**, **7**) to tilt the laser rotor head up and down.

### Arrow Buttons (Fig. R)

The arrow buttons (**6**, **7**) are used for different functions depending on the operating mode of the laser unit.

**In Self-Leveling Horizontal Mode:** the arrows buttons adjust the direction of the laser beam clockwise or counter clockwise during rotation or Scan Mode.

**In Self-Leveling Vertical Mode:** the arrow buttons move the laser beam left and right.

**In Slope Mode:** the arrow buttons are used to tilt the laser head.

## Height of Instrument Alert

The DW074LR and DW079LR/LG have a built-in alarm feature that alerts the operator if the unit is disturbed after the unit has self-leveled. The laser unit will stop rotating, the control panel LED indicator light will flash and the beeper will sound.

#### Turning the Laser Off

Press the power button for 3 sec to turn the laser off. The power LED indicator light will no longer be illuminated.

#### To Reset The Laser Unit for Continued Use

- Turn the unit off and back on again using the power button on the laser unit control panel.

**NOTE:** Always recheck the laser setup after the *Height of Instrument Alert* (Hi mode) has triggered.

## Using the Laser on a Tripod (Fig. C)

1. Position the tripod securely and set it to the desired height.
2. Make sure that the top of the tripod is roughly level. The laser will self-level only if the top of the tripod is within  $\pm 5^\circ$  of level. If the laser is set up too far out of level, it will beep when it reaches the limit of its leveling range. No damage will be done to the laser, but it will not operate in an “out of level” condition.
3. Secure the laser to the tripod by attaching the tripod adapter **20** as shown in Figure C to the laser body. The adapter may be assembled to the bottom for level mode or to the side for plumb mode. Place the assembly on the tripod and screw the threaded knob on the tripod into the female thread on the tripod adapter.  
**NOTE:** Be sure that the tripod you are working with has a 5/8”-11 threaded screw to ensure secure mounting.
4. Turn the laser on and adjust the rotation speed and controls as desired.

## Using the Laser on a Floor (Fig. D)

The laser level can be positioned directly on the floor for leveling and plumbing applications such as framing walls.

1. Place the laser on a relatively smooth and level surface where it will not be disturbed.

2. Position the laser for a level or plumb setting as shown.
3. Turn the laser on and adjust the rotation speed and controls as desired.

**NOTE:** The laser will be easier to set up for wall applications if the rotation speed is set to 0 rpm's and if the remote control is used to line up the laser with control marks. The remote allows one person to set up the laser.

## Using the Remote Control (Fig. E) (DW079LR/LG)

The remote control allows one person to operate and setup the laser from a distance. The remote control features a power/slope mode button **13**, two arrows (rotation direction and tilt angle) (**16, 17**), scan angle adjust button **18** speed button **19** and axis selection button **14**. The LED light indicates a signal is being transmitted.

### Remote Control: Mode Button

Press the remote control mode button **18** to put the laser unit into Scan Mode. In Scan Mode all laser unit functions shut off except for a periodic blink from the power LED **9** on the control panel of the laser unit. Press the remote control power button again to "wake up" the laser unit.

**NOTE:** To completely power the laser unit off, the power button on the control panel of the laser unit must be pressed. The laser unit will also automatically power off if it is left in Sleep Mode for 8 hours.

### Remote Control: Mode Buttons

The Rotary Laser defaults to clockwise rotation of 360° at 600 RPM when powered on. Speed can be cycled through the available RPM selections using the SPEED button **19**.

### Remote Control: Slope Mode Button (Fig E)

To activate Slope Mode press the remote control MODE button **13**. To return to self-leveling mode and re-engage full self-leveling, press and hold the MODE button **13** again.

### Setting the Slope Direction:

When Slope Mode is activated, the unit automatically engages the X- Axis. This allows the operator to slope the laser in the direction of the X-Axis, as indicated by the "gunsights" on the rollcage.

In certain situations, it may be desirable to slope the laser in the Y-axis. The direction of Slope Mode can be changed back and forth between the Y- and X-axes by pressing the X-Y axis button **14**.

The LED indicator light on the laser unit control panel (Fig. B, **11, 12**) will indicate the slope direction that is selected. The selected axis is identified by LED lights (**24, 25**).

### Setting the Amount of Slope:

Once Slope Mode is activated and the desired axis is active the amount of slope can be adjusted as follows:

- Use the remote control up and down arrow buttons (Fig. E: **16, 17**) to tilt the laser rotor head up and down.

### Remote Control: Arrow Buttons



The arrow buttons (**16, 17**) are used for different functions depending on the operating mode of the laser unit.

#### In Self-Leveling Horizontal Mode:

- The up and down arrows **17** adjust the length of the laser line in Scan Mode.
- The left and right arrows **16** adjust the direction of the laser beam in Scan Mode or Pointing Mode (0 rpm).

#### In Self-Leveling Vertical Mode:

- The arrow buttons (**16, 17**) adjust the position of the laser line in Scan Mode. and move the laser beam left and right.

#### In Slope Mode:

- The arrow buttons (**16, 17**) are used to tilt the laser head up or down in the X and Y directions as marked on the protective roll cage of the laser unit.

### Remote Control: Speed/Rotation Button



The speed/rotation button **19** is used to adjust the speed of the laser beam through its 4 preset speeds.

**NOTE:** The speed/rotation button performs the same function as the speed/rotation button on the control panel of the laser unit.

### Remote Control: Scan Mode Button



The scan mode button **18** is used to make the laser head sweep back and forth, creating a short, bright laser line. This short line is much brighter and more visible than when the unit is in full rotation mode.

#### Using Scan Mode:

- To enter Scan Mode, push and release the scan mode button. To exit Scan Mode, push and release the button again.
- The size and direction of the scan zone can be controlled with the arrow buttons on the laser unit control panel or the remote control. For a more detailed explanation, refer to **Arrow Buttons** under **Laser Control Panel Buttons**

## Laser Accessories

Recommended accessories for use with your tool are available for purchase at your factory-owned local service center.



**WARNING:** Since accessories, other than those offered by DeWALT, have not been tested with this product, use of such accessories with this tool could be hazardous. To reduce the risk of injury, only DeWALT, recommended accessories should be used with this product.

If you need assistance in locating any accessory, please contact DeWALT Industrial Tool Co., 701 East Joppa Road, Towson, MD 21286, call 1-800-4-DeWALT (1-800-433-9258) or visit our website [www.DeWALT.com](http://www.DeWALT.com)

## Laser Enhancement Glasses (Fig. F)

Some laser kits include a pair of Laser Enhancement Glasses. These glasses improve the visibility of the laser beam under bright light conditions or over long distances when the laser is used for interior applications. These glasses are not required to operate the laser.



**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:** To reduce the risk of serious personal injury, never stare directly into the laser beam, with or without these glasses.

## Target Card (Fig. G)

Some laser kits include 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 standard and metric scales. The laser beam passes through the red plastic and reflects off of the reflective tape on the reverse side. The magnet at the top of the card is designed to hold the target card to ceiling track or steel studs to determine plumb and level positions. For best performance when using the Target Card, the DeWALT logo should be facing you.

## Digital Laser Detector: DW0743R (red beam) & DW0743G (green beam) (Fig. H–K)

Some laser kits include a DeWALT Digital Laser Detector. The DeWALT Digital Laser Detector allows 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 but is compatible with most rotary red-beam (DW0743R) and green beam (DW0743G) lasers. It can be set to indicate the location of the beam to either the nearest 1/8" (3 mm) or the nearest 1/25" (1 mm). The detector gives both visual signals through the display window **22** and audio signals through the speaker **23** to indicate the location of the laser beam.

The DeWALT Digital Laser Detector can be used with or without the detector clamp. When used with the clamp, the detector can be positioned on a grade rod, leveling pole, stud or post.

### Batteries (Fig. H)

The Digital Laser Detector is powered by a 9 volt battery. To install the battery provided, lift up on the battery compartment cover **21**. Place the 9 volt battery in the compartment, aligning the battery as shown.

### Detector Controls (Fig. I)

The detector is controlled by the power button **26** and the accuracy mode button **27**.

When the power button is pushed once, the detector is turned on. The top of the display window shows the accuracy icon **27**, and the volume icon **28**. To decrease the volume of the audible signal that the detector emits when it senses a laser

beam, push the button again; one of the half circles next to the horn icon will disappear. To turn off the audible signal push the button a third time; the volume icon will disappear. The DeWALT Digital Laser Detector also has an auto shut-off feature. If a rotary laser beam does not strike the beam detection window, or if no buttons are pressed, the detector will shut itself off in about 30 minutes.

When the detector is on, the top of the window shows an accuracy mode icon. Either the  $\pm 1/25"$  (1 mm) accuracy mode icon **53** will appear, or the  $\pm 1/8"$  (3 mm) accuracy mode icon **54** will appear. When the  $\pm 1/25"$  (1 mm) accuracy mode icon appears, it indicates that the detector will give an "on grade" reading only when the laser beam is on grade or no more than 1/25" (1 mm) above or below it. When the 1/8" (3 mm) accuracy mode icon appears, it indicates that the detector will give an "on grade" reading when the laser beam is on grade or approximately 1/8" (3 mm) above or below it. Push the accuracy mode button **27** once to change the accuracy mode.

### Detector Operation (Fig. I, J)

1. Set up and position the rotary laser that you will be using according to the manufacturer's directions. Turn the laser on and make sure that the laser is rotating and emitting a laser beam. **NOTE:** This detector has been designed to be used only with a rotating laser. The detector will not work with a stationary beam laser level.
2. Turn the detector on by pressing the power/volume button **26**.
3. Adjust the volume as desired as described in the **Detector Controls**.
4. Position the detector so that the detector window **22** is facing the laser beam produced by the rotary laser. Move the detector up or down within the approximate area of the beam, until you have centered the detector. For information about the display window indicators and the audible signal indicators, refer to the table titled **Indicators** (Fig. J).
5. Use the marking notches **30** to accurately mark the position of the laser beam.

### Mounting on A Grade Rod (Fig.K)

To secure your detector to a grade rod, first attach the detector to the clamp using the 1/4"-20 threaded knob **47** on the back of the clamp. Slide the tracks **32** on the clamp around the rail **33** on the grade rod.

1. Position the detector at the height needed and turn the clamp knob clockwise to tighten the jaws of the clamp around the grade securing the clamp on the rod.
2. To make adjustments in height, slightly loosen the clamp, reposition and retighten.

### Detector Cleaning and Storage

- Dirt and grease may be removed from the exterior of the detector using a cloth or soft, non-metallic brush.
- The DeWALT Digital Laser Detector is waterproof. If you should drop the detector in mud, wet concrete, or a similar substance, simply hose the detector off. Do not use high pressure water, e.g., from a pressure washer.

- The best storage place is one that is cool and dry—away from direct sunlight and excess heat or cold.

## Detector Service

Except for batteries, there are no user serviceable parts in the Digital Laser Detector. Do not disassemble the unit. Unauthorized tampering with the laser detector will void all warranties.

## Detector Troubleshooting

### The detector will not turn on.

- Press and release the power/volume button.
- Check to see that the battery is in place and in the proper position.
- If the detector is very cold, allow it to warm up in a heated area.
- Replace the 9 volt battery. Turn the unit on.
- If the detector still does not turn on, take the detector to a DeWALT service center.

### The detector's speaker makes no sound.

- Ensure that the detector is on.
- Press the power/volume button. It will toggle from high, to low, to mute.
- Ensure that the rotary laser is spinning and that it is emitting a laser beam.
- If the detector is still not making any sound, take it to a DeWALT service center.

### The detector does not respond to a stationary laser beam.

- The DeWALT Digital Laser Detector has been designed to work only with rotary lasers.

### The detector gives off a tone but the LCD display window does not function.

- If the detector is very cold, allow it to warm up in a heated area.
- If the LCD display window is still not functioning, take the detector to a DeWALT service center.

## Construction Grade Rod (Fig. L)



**DANGER: NEVER** attempt to use a grade rod in a storm or near overhanging electric wires. Death or serious personal injury will occur.

Some laser kits include a grade rod. The DeWALT Grade Rod is marked with measurement scales on both sides and is constructed in telescoping sections. A spring-loaded button actuates a lock to hold the grade rod at various lengths.

The front of the grade rod has the measurement scale starting at the bottom. Use this for measuring from the ground up when grading or leveling jobs.

The back of the grade rod is designed to measure the height of ceilings, joists, etc. Fully extend the top section of the grade rod until the button locks into the previous section. Extend that section either until it locks into the adjacent section or until the grade rod touches the ceiling or joist. The height is read where the last extended section exits the previous lower section, as shown in Figure L.

## Using the Laser with a Wall Mount (Fig. C, M, N)

Some laser kits include a Wall Mount. It can be used for attaching the tool to track or ceiling angle and to aid in acoustical ceiling installation. Follow the directions below for using the wall mount.



**CAUTION:** Before attaching the laser level to wall track or ceiling angle, be sure that the track or angle is properly secured.

1. Place the laser on the mounting base **37** aligning the 5/8–11 screw hole on the tripod adapter (**20**, Fig. C) attached to the bottom of the laser with the hole **39** in the mounting base. Turn the mounting knob **40** to secure the laser.
2. With the wall mount measuring scale **41** facing you, loosen the wall mount clamp locking knob **42** to open the clamp jaws.
3. Position the clamp jaws around the wall track or ceiling angle and tighten the wall mount clamp locking knob **42** to close the clamp jaws onto the track. Be sure that the wall mount clamp locking knob is securely tightened before proceeding.



**CAUTION:** Always use a ceiling wire hanger or equivalent material, in addition to the wall mount clamp locking knob, to help secure the laser level while mounting it to a wall. Thread the wire through the handle of the laser level. **DO NOT** thread the wire through the protective metal cage. Additionally, screws may be used to fasten the wall mount directly to the wall as a back up. Screw holes **43** are located at the top of the wall mount.

4. Using the base leveling knob **44** approximate a level position from the wall.
5. The tool can be adjusted up and down to the desired offset height for working. To change the height, loosen the locking knob **45** located on the left of the wall mount. Support the mounting base when adjusting the height.
6. Turn the adjustment knob **46**, located to the right of the wall mount, to move the laser level up and down to set your height. Use the wall mount measuring scale **41** to pinpoint your mark.
 

**NOTE:** It may be helpful to turn the power on and turn the rotary head so that it puts a dot on one of the laser scales. The DeWALT target card is marked at 1–1/2" (38 mm), therefore, it may be easiest to set the offset of the laser to 1–1/2" (38 mm) below the track.
7. Once you have positioned the laser at the desired height, tighten the locking knob **45** to maintain this position.

## MAINTENANCE

### Laser Maintenance

- Under some conditions, the glass lens may collect some dirt or debris. This will affect beam quality and operating range. The lens should be cleaned with a cotton swab moistened with water.
- The flexible rubber shield can be cleaned with a wet lint-free cloth such as a cotton cloth. USE WATER ONLY — DO NOT use cleansers or solvents. Allow the unit to air dry before storing.
- To maintain the accuracy of your work, check the calibration of the laser often. Refer to **Field Calibration Check**.
- 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 the laser is not in use, store it in the kit box provided.
- Do not store your laser in the kit box if the laser is wet. Dry exterior parts with a soft, dry cloth and allow the laser to air dry.
- Do not store your laser at temperatures below 0°F (-18°C) or above 105°F (41°C).



**WARNING:** Never use solvents or other harsh chemicals for cleaning the non-metallic parts of the tool. These chemicals may weaken the materials used in these parts. Use a cloth dampened only with water and mild soap. Never let any liquid get inside the unit; never immerse any part of the unit into a liquid. Never use compressed air to clean the laser.

### Field Calibration Check (Fig. O, P)

Field calibration checks should be done frequently. This section provides instructions for performing simple field calibration checks of your DeWALT Rotary Laser. Field calibration checks do not calibrate the laser. That is, these checks do not correct errors in the leveling or plumbing capability of the laser. Instead, the checks indicate whether or not the laser is providing a correct level and plumb line. These checks cannot take the place of professional calibration performed by a DeWALT service center.

#### Level Calibration Check (X-axis)

- Set up a tripod between two walls that are at least 50 feet apart. The exact location of the tripod is not critical.
- Mount the laser unit on the tripod so that the X-axis points directly toward one of the walls.
- Turn the laser unit on and allow it to self-level.
- Mark and measure points A and B on the walls as shown in Figure O.
- Turn the entire laser unit 180° so the X-axis points directly toward the opposite wall.
- Allow the laser unit to self-level, and mark and measure points AA and BB on the walls as shown in Figure P.
- Calculate the total error using the equation:

$$\text{Total Error} = (AA - A) - (BB - B)$$

- Compare total error to the allowable limits shown in the following table.

Distance between walls	Allowable Error
L = 50 ft. (15.3 m)	1/8" (3 mm)
L = 75 ft. (22.9 m)	3/16" (4.5 mm)
L = 100 ft. (30.5 m)	1/4" (6 mm)

#### Level Calibration Check (Y-axis)

Repeat the procedure above, but with the laser unit positioned so the Y-axis is pointed directly toward the walls.

#### Plumb Error Check (Fig. Q)

- Using a standard plumb bob as a reference, mark the top and bottom of a wall. (Be sure to mark the wall and not the floor and ceiling.)
- Position the rotary laser securely on the floor approximately 3' (1 m) from the wall.
- Turn the laser on, and point the dot at the mark on the bottom of the wall. Then, using the up/down arrows on the remote control, rotate the dot upwards. If the center of the dot scans over the mark on the top of the wall, the laser is properly calibrated.

**NOTE:** This check should be done with a wall no shorter than the tallest wall for which this laser will be used.

### Service and Repairs

**NOTE:** Disassembling the laser level will void all warranties on the product.

To assure product SAFETY and RELIABILITY, repairs, maintenance and adjustment should be performed by authorized service centers. Service or maintenance performed by unqualified personnel may result in a risk of injury. To locate your nearest DeWALT service center call 1-800-4-DeWALT (1-800-433-9258) or visit our website: [www.DeWALT.com](http://www.DeWALT.com).

### Register Online

Thank you for your purchase. Register your product now for:

- WARRANTY SERVICE:** Registering your product will help you obtain more efficient warranty service in case there is a problem with your product.
- CONFIRMATION OF OWNERSHIP:** In case of an insurance loss, such as fire, flood or theft, your registration of ownership will serve as your proof of purchase.
- FOR YOUR SAFETY:** Registering your product will allow us to contact you in the unlikely event a safety notification is required under the Federal Consumer Safety Act.

Register online at [www.dewalt.com/register](http://www.dewalt.com/register).

### 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](http://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.

### **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.

**RECONDITIONED PRODUCT:** Reconditioned product is covered under the 1 Year Free Service Warranty. The 90 Day Money Back Guarantee and the Three Year Limited Warranty do not apply to reconditioned product.

**FREE WARNING LABEL REPLACEMENT:** If your warning labels become illegible or are missing, call 1-800-4-DeWALT or visit your local service center for a free replacement.