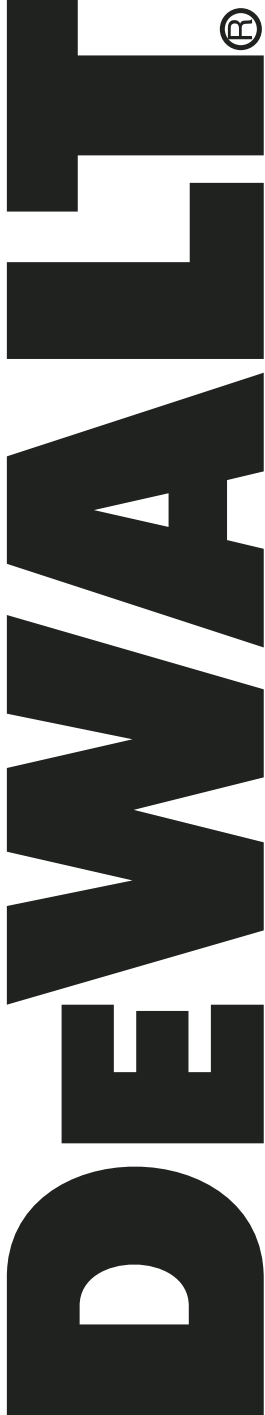


INSTRUCTION MANUAL



DW082-XE  
LASER PLUMB BOB

DeWALT Industrial Tool Co.,  
701 East Joppa Road, Baltimore, MD 21286 • 20 Fletcher Road, Mooroolbark, VIC 3138 Australia  
(JUN04) Form No. 626282-00 DW082-XE Copyright © 2004

The following are trademarks for one or more DeWALT power tools: the yellow and black color scheme; the “D” shaped air intake grill; the array of pyramids on the handgrip; the kit box configuration; and the array of lozenge-shaped humps on the surface of the tool.

IF YOU HAVE ANY QUESTIONS OR COMMENTS ABOUT THIS OR ANY DeWALT TOOL, CALL US AT: **1800 654 155** (Aust) or **09 526 2556** (NZ).

SAFETY INSTRUCTIONS FOR POWER TOOLS

When using power tools, always observe the safety regulations applicable in your country to reduce the risk of fire, electric shock and personal injury. Read the following safety instructions before attempting to operate this product. Keep these instructions in a safe place.

General Safety Rules

**⚠ WARNING! Read all instructions.** Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury. The term “power tool” in all of the warnings listed below refers to your mains operated (corded) power tool or battery operated (cordless) power tool.

SAVE THESE INSTRUCTIONS

**⚠ WARNING! DO NOT DISASSEMBLE THE LASER PLUMB BOB.** There are no user serviceable parts inside. Disassembling the Laser Plumb Bob 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.

- **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 Centre call **1800 654 155** (Aust) or **09 526 2556** (NZ).
- **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.
- **Repairs and servicing MUST be performed by a qualified repair facility.** Repairs performed by unqualified personnel could result in serious injury.
- **Do not disassemble the laser tool.** There are no user serviceable parts inside.
- **Do not modify the laser in any way.** Modifying the tool may result in Hazardous Laser Radiation Exposure.
- **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.
- **Do not use alignment magnets to support the weight of the tool.** Using alignment magnets for support increases the risk of the laser falling.

**⚠ CAUTION: Use of controls or adjustments or performance of procedures other than those specified herein may result in Hazardous Radiation Exposure.**

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

V .....volts  
mW .....milliwatts  
☀ .....Laser warning symbol  
nm .....wavelength in nanometers  
II .....Class II Laser  
IIIa.....Class IIIa Laser

WARNING LABELS

For your convenience and safety, the following label is on your laser (Fig. 1).

**⚠ CAUTION: LASER RADIATION - DO NOT STARE INTO THE LASER BEAM. CLASS II LASER PRODUCT.**

**⚠ CAUTION: CLASS 2 LASER RADIATION WHEN OPEN DO NOT STARE INTO THE BEAM.**

Laser Information

The DW082 Laser Plumb Bob is a class II laser product and complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to laser notice No. 50, dated July 26, 2001.

INTRODUCTION

The DW082 Laser Plumb Bob is a self-plumbing laser tool that can be used inside and outside for vertical (plumb) alignment projects. This tool comes fully assembled. This tool has been designed with features that allow for quick and easy set-up. Please read and understand all instructions within this instruction manual prior to use.

General Safety Rules For Battery Operated Tools

1. WORK AREA

- a. **Keep work area clean and well lit.** Cluttered and dark areas invite accidents.
- b. **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.
- c. **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

2. ELECTRICAL SAFETY

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

Battery

This tool is powered by four AA size batteries.

To install batteries:

1. Lift up the battery compartment cover (A) as shown in Figure 1.
2. Insert four fresh AA batteries in the compartment, placing the batteries according to label in battery compartment.

**⚠ WARNING: Batteries can explode, or leak, and can cause injury or fire.** To reduce this risk:

- Carefully follow all instructions and warnings on the battery label and package.
- Always insert batteries correctly with regard to polarity (+ and –), marked on the battery and the equipment.
- Do not short battery terminals.
- Do not charge batteries.
- Do not mix old and new batteries. Replace all of them at the same time with new batteries of the same brand and type.
- Remove dead batteries immediately and dispose of per local codes.
- Do not dispose of batteries in fire.
- Keep batteries out of reach of children.
- Remove batteries if the device will not be used for several months.

3. PERSONAL SAFETY

- a. **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.
- b. **Use safety equipment. Always wear eye protection.** Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c. **Avoid accidental starting. Ensure the switch is in the off position before plugging in.** Carrying power tools with your finger on the switch or plugging in power tools that have the switch on invites accidents.
- d. **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- e. **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- f. **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
- g. **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of these devices can reduce dust related hazards.

4. POWER TOOL USE AND CARE

- a. **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.
- b. **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c. **Disconnect the plug from the power source before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
- d. **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
- e. **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
- f. **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- g. **Use the power tool, accessories and tool bits etc., in accordance with these instructions and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.

5. BATTERY TOOL USE AND CARE

- a. **Ensure the switch is in the off position before inserting battery pack.** Inserting the battery pack into power tools that have the switch on invites accidents.
- b. **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
- c. **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.
- d. **When battery pack is not in use, keep it away from other metal objects like paper clips, coins, keys, nails, screws, or other small metal objects that can make a connection from one terminal to another.** Shorting the battery terminals together may cause burns or a fire.
- e. **Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help.** Liquid ejected from the battery may cause irritation or burns.

6. SERVICE

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

To locate your nearest DeWALT Service Centre call **1800 654 155** (Aust) or **09 526 2556** (NZ).

Electrical Safety

The electric motor has been designed for one voltage only. Always check that the power supply corresponds to the voltage on the rating plate. 240 V AC means your tool will operate on alternating current. As little as 10% lower voltage can cause loss of power and can result in overheating. All DeWALT tools are factory tested; if this tool does not operate, check the power supply. Your DeWALT tool is double insulated, therefore no earth wire is required.

- **Young children and the infirm.** This appliance is not intended for use by young children or infirm persons without supervision. Young children should be supervised to ensure that they do not play with this appliance.
- **Replacement of the supply cord.** If the supply cord is damaged, it must be replaced by the manufacturer or an authorised DeWALT Service Centre in order to avoid a hazard.

Operating Tips

- Use only new, high-quality, name brand batteries for best results.
- Ensure batteries are in good working condition. If the Low Battery Indicator Light is flashing, the batteries need replacement.
- To extend battery life, 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 Check**.
- Before attempting to use the laser, make sure the tool is positioned securely and on a smooth surface.
- Always mark the center of the dot or pattern created by the laser.
- Extreme temperature changes may cause movement of internal parts that can affect accuracy. Check your accuracy often while working. See Field Calibration Check section of this manual.
- If the laser has been dropped, check to make sure your laser is calibrated. See Field Calibration Check section of this manual.

Battery

This tool is powered by four AA alkaline or rechargeable batteries.

TO INSTALL BATTERIES

1. Lift up on the battery compartment cover (A) as shown in Figure 2.
2. Place batteries in the compartment, aligning them according to label in battery compartment.

LOW BATTERY INDICATION

The DW082 is equipped with a Low Battery Indicator Light (B), as shown in Figure 3. The Low Battery Indicator Light is located directly above the ON/OFF button (C).

A flashing Low Battery Indicator Light indicates that the batteries are low and need to be replaced. The laser may continue to operate for a short time while the batteries continue to drain, but the beams will quickly dim. After fresh batteries are installed, and the laser is turned on again, the laser will return to its full brightness. (A flashing laser beam is not caused by low batteries; see Out of Tilt Range Indicator section below.)

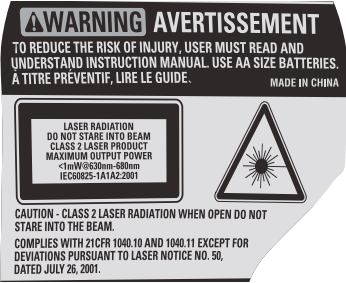


FIG. 1

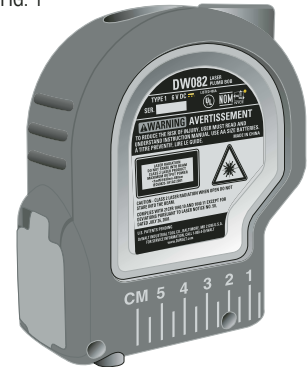


FIG. 2

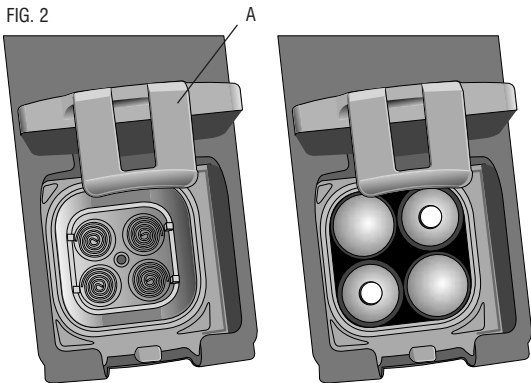


FIG. 3

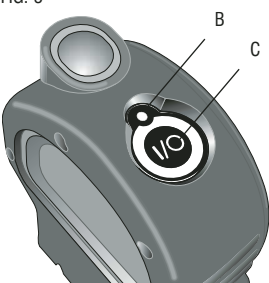


FIG. 4

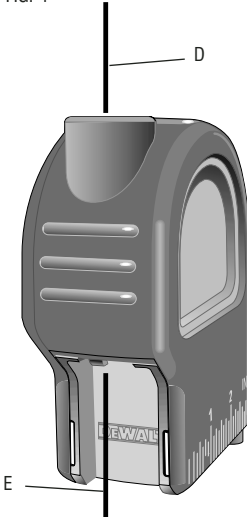


FIG. 5

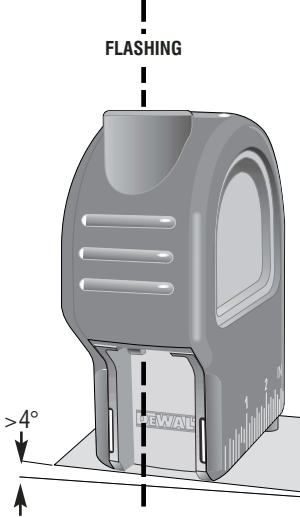


FIG. 6

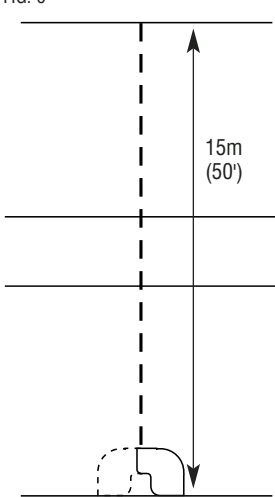
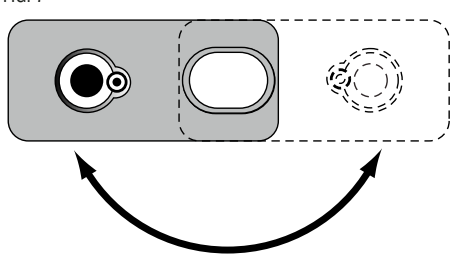


FIG. 7



## OPERATION

### TO TURN THE LASER ON AND OFF

- For initial use, install fresh batteries. Press the ON/OFF (C) button once to power the laser ON. The laser will turn on and project two beams; one up (D) and one down (E) as shown in Figure 4.
- Press the ON/OFF button again. The laser will then turn off and no laser beams will be projected.

### Using the Laser Plumb Bob

With the Laser Plumb Bob OFF, place the plumb bob on the floor, press the ON/OFF button to power the laser ON. The laser will turn on and project two beams; one up and one down.

The two beams are plumb as long as the calibration has been checked (see **Field Calibration Check** below) and the laser beam is not flashing (see **Out of Tilt Range Indicator**).

The tool can be used to transfer a point up or down by using one beam to locate the Laser Plumb Bob, and then transferring the point using the other beam.

**NOTE:** The Laser Plumb Bob has magnets which can be used to help position the tool against steel track fastened to the floor. The magnets are for alignment purposes only and **SHOULD NOT BE USED TO SUPPORT THE WEIGHT OF THE TOOL**. Always make sure the tool is positioned securely and on a smooth surface

### OUT OF TILT RANGE INDICATOR

The DW082 Laser Plumb Bob is designed to self-plumb. If the laser has been tilted so much that internal mechanism cannot plumb itself (> 4° tilt), it will flash the laser beam (Fig. 5). The flashing dot indicates the tilt range has been exceeded and **IS NOT PLUMB AND SHOULD NOT BE USED FOR DETERMINING OR MARKING PLUMB**. Try repositioning the laser on a more level surface.

### USING THE LASER WITH ACCESSORIES

The laser is equipped with a 1/4" x 20 female thread on the bottom of the unit. This thread is to accommodate current or future DeWALT accessories. Only use DeWALT accessories specified for use with this product. Follow the directions included with the accessory.

**⚠ CAUTION:** The use of any other accessory not recommended for use with this tool could be hazardous. If you need any assistance in locating any accessory, please contact DeWALT Industrial Tool Co., 20 Fletcher Road, Mooroolbark, VIC 3138 Australia or call 1800 654 155.

### PLUMBING THE LASER PLUMB BOB

As long as the tool is properly calibrated, this tool is self-plumbing. It is calibrated at the factory to find plumb as long as it is positioned on a flat surface within 4° of level. No manual adjustments must be made.

## MAINTENANCE

To maintain the accuracy of your work, have the laser checked often to make sure it is properly calibrated. See the Field Calibration Check section of this manual.

Calibration checks and other maintenance repairs may be performed by DeWALT service centres.

When not in use, store the laser in the kit box provided. Do not store your laser at temperatures below 0°F or above 185°F.

**⚠ CAUTION:** Do not store your laser in the kit box if the laser is wet. The laser may be dried first with a soft dry cloth.

## Cleaning

Exterior plastic parts may be cleaned with a damp cloth and mild detergent. Although these parts are solvent resistant, **NEVER** use solvents. Use a soft dry cloth to remove moisture from the tool before storage.

## Field Calibration Check

This section provides instructions by which you can perform a simple field calibration check of your DeWALT Laser Plumb Bob.

Checking the plumb calibration of the laser can be most accurately done when there is a substantial amount of vertical height available, ideally 15m (50'), with one person on the floor positioning the laser and another person near a ceiling about 15m (50') higher to mark the dot on the ceiling (Fig. 6). It is important to conduct a calibration check using a vertical distance no shorter than the vertical distance of the applications for which the tool will be used.

- Start by marking a point on the floor.
- Place the laser so that the down beam is centered on the point marked on the floor.
- Allow time for the laser to settle to plumb and mark the center of the dot created by the up beam.
- Turn the laser 180° as shown (Fig. 7), making sure that the down beam is still centered on the point previously marked on the floor.
- Allow time for the laser to settle to plumb and mark the center of the dot created by the up beam.

**Note:** The distance between the two marks on the ceiling is **TWICE** the actual error.

The two marks on the 15m (50') high ceiling should be no more than 6.35mm (1/4") apart. If the vertical distance being used is much less than 15m (50'), then the dots should be closer.

## Troubleshooting

### THE LASER DOES NOT TURN ON

- Make sure batteries are installed according to the label in the battery compartment.
- Make sure the batteries are in proper working condition. If in doubt, try installing new batteries.

- Make sure that the battery contacts are clean and free of rust or corrosion. Be sure to keep the Laser Plumb Bob dry and use only new, high-quality, name brand batteries to reduce the chance of battery leakage.
- While the laser may be stored in temperatures up to 185°F (85°C), the laser has a built-in protection circuit that will not allow it to operate at temperatures in excess of 104°F (40°C). If the laser has been stored in extremely hot temperatures, allow it to cool. The Laser Plumb Bob will not be damaged by pressing the ON/OFF button before cooling to its proper operating temperature.

### THE LASER BEAMS FLASH

The DW082 Laser Plumb Bob has been designed to self-plumb up to 4° in all directions when positioned as shown in Figure 4. If the laser is tilted so much that internal mechanism cannot plumb itself, it will flash the laser (Fig. 5) – the tilt range has been exceeded. **THE FLASHING DOT CREATED BY THE LASER IS NOT PLUMB AND SHOULD NOT BE USED FOR DETERMINING OR MARKING PLUMB**. Try repositioning the laser on a more level surface.

### THE LASER DOTS WILL NOT STOP MOVING

The DW082 is a precision instrument. Therefore, if it is not positioned on a stable (and motionless) surface, the tool will continue to try to find plumb. If the dot will not stop moving, try placing the tool on a more stable surface. Also, try to make sure that the surface is relatively flat, so that the laser is stable.

## Service & Repairs

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 Centre call **1800 654 155** (Aust) or **09 526 2556** (NZ).

Specifications	
Light Source	Semiconductor laser diode
Laser Wavelength	630 – 680 nm Visible
Laser Power	<1mw (each beam) <b>CLASS II LASER PRODUCT</b>
Working Range	±100' (30m)
Accuracy* (Up)	±1/8" @ 50' (±3mm @ 15m)
Accuracy* (Down)	± 1/4" @ 50' (±6.35mm @ 15m)
Indicators	Flashing Indicator: battery low Flashing Laser: tilt range exceeded
Power Source	4 AA Size Batteries (6.0V DC)
Operating Temperature	32°F to 104°F (0°C to 40°C)
Storage Temperature	0°F to 185°F (-40°C to 85°C)
Environmental	Water Resistant

\*Accuracy spec assumes laser is positioned on a surface within 4° of level.

## Guarantee

Applicable to hand held Power Tools, Lasers and Nailers.

### 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. Please return the complete unit, transportation prepaid, to any DeWALT Service Centre, or any authorised service station.

For warranty repair information, call 1800 654 155.

This warranty does not apply to

- Accessories
- Damage caused where repairs have been made or attempted by others.
- Damage due to misuse, neglect, wear and tear, alteration or modification.

This warranty gives you specific legal rights and you may have other rights under the provisions of the Consumer Guarantee Act 1993 (New Zealand only), Trade Practices Act 1974 and State Legislation (Australia only).

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

### FREE ONE YEAR SERVICE CONTRACT

DeWALT will also maintain the tool for free at any time during the first year of purchase. This includes labour, parts and lubrication required to restore the product to sound mechanical and/or electrical condition. Normal wear parts are not covered in this service. Carbon brushes worn more then 50% will be replaced.

**NOTE:** Three Year Warranty is not applicable to items deemed as consumables. Radial arm saws are covered by a one (1) year warranty only. DeWALT Reserves the right to review its warranty policy prior to launch of any new business development products.

### 30 DAY NO SATISFACTION GUARANTEE

If you are dissatisfied with any DeWALT power tool, laser or nailer, for any reason, simply return it to the point of purchase with your sales receipt within 30 days for a replacement unit or a full refund.

**FREE WARNING LABEL REPLACEMENT:** If your warning labels become illegible or are missing, call 1800-654-155 for a free replacement.

