

INSTRUCTION MANUAL

DEWALT®

D26450-XE, D26451-XE, D26453-XE RANDOM ORBIT PALM SANDERS

DeWALT Industrial Tool Co.,

701 East Joppa Road, Baltimore, MD 21286 • 20 Fletcher Road, Mooroolbark, VIC 3138 Australia
(MAR05) Form No. 631077-00 D26450-XE, D26451-XE, D26453-XE Copyright © 2005 DeWALT

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

1. WORK AREA

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

2. ELECTRICAL SAFETY

- Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
- Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
- When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.

3. PERSONAL SAFETY

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

- 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.
- 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.
- 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.
- 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.
- 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.
- Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

- 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

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

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. 230 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.

Extension Cords

▲CAUTION: Use only extension cords that are approved by the country’s Electrical Authority. Before using extension cords, inspect them for loose or exposed wires, damaged insulation and defective fittings. Replace the cord if necessary.

Additional Safety Instructions for Sanders

- Accessories must be rated for at least the speed recommended on the tool warning label.** Wheels and other accessories running over rated speed can fly apart and cause injury. Accessory ratings must be above listed minimum wheel speed as shown on tool nameplate.
- Hold tool by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord.** Contact with a “live” wire will make exposed metal parts of the tool “live” and shock the operator.
- Always wear eye protection and a respirator when sanding.**
- Sanding of lead-based paint is not recommended.** See **Precautions To Take When Sanding Paint** for additional information before sanding paint.
- Do not operate the unit without the dust collection bag.**
- Clean your tool out periodically.**
- Empty dust bag frequently, especially when sanding resin coated surfaces such as polyurethane, varnish, shellac, etc.** Dispose of coated dust particles according to the finish manufacturer’s guidelines, or place in a metal can with a tight-fitting metal lid. Remove coated dust particles from the premises daily. The accumulation of fine sanding dust particles may self ignite and cause fire.
- Replace worn CFS disc when it causes high tool rpm.** High tool rpm caused by a worn out CFS disc may result in separation of sanding pad from the sander, possibly causing personal injury. For instructions on replacing the CFS disc, see **Tool Care**.

▲WARNING: Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- lead from lead-based paints,
- crystalline silica from bricks and cement and other masonry products, and
- arsenic and chromium from chemically-treated lumber (CCA).

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

- Avoid prolonged contact with dust from power sanding, sawing, grinding, drilling, and other construction activities. Wear protective clothing and wash exposed areas with soap and water.** Allowing dust to get into your mouth, eyes, or lay on the skin may promote absorption of harmful chemicals.

▲WARNING: Use of this tool can generate and/or disburse dust, which may cause serious and permanent respiratory or other injury. Always use NIOSH/OSHA approved respiratory protection appropriate for the dust exposure. Direct particles away from face and body.

▲CAUTION: Wear appropriate hearing protection during use. Under some conditions and duration of use, noise from this product may contribute to hearing loss.

- The label on your tool may include the following symbols. The symbols and their definitions are as follows:

V	volts	A	amperes
Hz	hertz	W	watts
min	minutes	~	alternating current
====	direct current	no	no load speed
☐	Class II Construction	⊕	earthing terminal
▲	safety alert symbol	.../min	revolutions per minute
sfpm	surface feet per minute		

SAVE THESE INSTRUCTIONS

COMPONENTS (Fig. 1)

- | | |
|--------------------------------|------------------------|
| A. On/Off switch | D. Dust collection bag |
| B. Speed control dial (D26453) | E. Vac-adapter |
| C. Sanding pad | F. CFS disc (Fig. 6) |

Motor

Your DeWALT tool is powered by a DeWALT built motor. Be sure your power supply agrees with the nameplate marking. (Volts, 230 AC only). Voltage decrease of more than 10% will cause loss of power and overheating. All DeWALT tools are factory tested; if this tool does not operate, check the power supply.

REQUIRED SANDPAPERS			
Model Sander	Disc Size	Attachment Method	Hole Pattern
D26450	127 mm (5")	PSA	8 Holes
D26451	127 mm (5")	Hook & Loop	8 Holes
D26453	127 mm (5")	Hook & Loop	8 Holes

Attaching Sanding Discs

Your sander is designed to use 127 mm (5") sanding discs with an 8-hole dust extraction pattern. Sanding discs for the D26451 and D26453 attach with hook and loop. Sanding discs for the D26450 attach using pressure sensitive adhesive (PSA).

TO ATTACH PAPER TO THE SANDING PAD (FIG. 2)

▲CAUTION: Turn off and unplug the tool before making any adjustments or removing or installing attachments or accessories. Be sure the switch is in the OFF position.

- Turn the sander over so that the sanding pad is facing upward.
- Clean the dust from the vinyl pad face.
- Hold the pad with one hand to keep it from rotating.
- With the other hand, align the holes and place the disc directly on top of the pad.

NOTE: Do not use sanding screen (e.g., screen used for sanding drywall) directly on the hook and loop pad. The screen will not hold and will damage the hooks on the pad. The hooks on the pad will wear very rapidly if left in contact with the work surface while the tool is operating.

Switch (Fig. 3)

To turn the unit on, depress the side of the dust-protected switch (A) that corresponds to the symbol “I”. To turn the tool off, depress the side of the switch that corresponds to the symbol “O”.

Speed Control Dial (D26453)

The speed control dial (B), shown in Figure 1, allows you to increase or decrease speed from 7,000–12,000 Orbits Per Minute. The optimal speed setting for each application is very much dependent on personal preference. Generally, you will want to use a higher setting on harder materials and a lower setting on softer materials. Material removal rate increases as speed increases.

Dust Extraction (Fig. 4)

▲CAUTION: Turn off and unplug the tool before making any adjustments or removing or installing attachments or accessories. Be sure the switch is in the OFF position.

Your sander has two dust collection methods: a twist-on dust collection bag (D) and a built-in vac-adaptor (E) which can be hooked directly to a shop vacuum system.

TO EMPTY DUST BAG

1. While holding the sander, grasp the dust collection bag (D) at the end nearest the sander and twist off of the vac-adaptor (E).
2. Gently shake or tap the dust collection bag to empty.
3. Twist dust collection bag back onto the vac-adaptor.

You may notice that all the dust will not come free from the bag. This will not affect sanding performance but will reduce the sander's dust collection efficiency. To restore your sander's dust collection efficiency, depress the spring inside the dust bag when you are emptying it and tap it on the side of the trash can or dust receptacle.

CAUTION: Never operate these tools unless the dust collector is in place. Sanding dust exhaust may create a breathing hazard.

OPERATION (Fig. 5)

To operate your sander, grasp it as shown in Figures 5A or 5B and turn it on. Move the unit in long, sweeping strokes along the surface being sanded, letting the sander do the work.

Pushing down on the tool while sanding actually slows the removal rate and produces an inferior quality surface. Be sure to check your work often, this sander is capable of removing material rapidly, especially with coarse paper. The random orbital action of your sander allows you to sand with the grain or at any angle across it for most sanding jobs. To produce the best finish possible, start with coarse grit sandpaper and change gradually to finer and finer paper. Vacuum and wipe surface with a tack cloth between grit steps. Your sander is designed to sand into small or confined areas. Its small size and light weight make it ideal for overhead work.

The rate at which the dust collection bag fills up will vary with the type of material being sanded and the coarseness of the sandpaper. For best results, empty the bag frequently. When sanding painted surfaces, (see the following for additional precautions when sanding paint) you may find that the sandpaper loads up and clogs with paint. A heat gun will work much better to remove paint before sanding. FOLLOW ALL SAFETY INSTRUCTIONS IN HEAT GUN INSTRUCTION MANUAL.

NOTE (D26450 only): When using PSA sanding discs, remove the disc soon after operation. PSA paper, if the disc is left on during tool storage, sometimes becomes difficult to remove. To aid in the removal of old PSA paper, sand for a few minutes to soften the adhesive backing prior to changing disc.

Precautions To Take When Sanding Paint

1. Sanding of lead based paint is NOT RECOMMENDED due to the difficulty of controlling the contaminated dust. The greatest danger of lead poisoning is to children and pregnant women.
2. Since it is difficult to identify whether or not a paint contains lead without a chemical analysis, we recommend the following precautions when sanding any paint:

PERSONAL SAFETY

1. No children or pregnant women should enter the work area where the paint sanding is being done until all clean up is completed.
2. A dust mask or respirator should be worn by all persons entering the work area. The filter should be replaced daily or whenever the wearer has difficulty breathing. See your local hardware store for the proper N.I.O.S.H. approved dust mask.
3. NO EATING, DRINKING or SMOKING should be done in the work area to prevent ingesting contaminated paint particles. Workers should wash and clean up BEFORE eating, drinking or smoking. Articles of food, drink, or smoking should not be left in the work area where dust would settle on them.

ENVIRONMENTAL SAFETY

1. Paint should be removed in such a manner as to minimize the amount of dust generated.
2. Areas where paint removal is occurring should be sealed with plastic sheeting of 4 mils thickness.
3. Sanding should be done in a manner to reduce tracking of paint dust outside the work area.

CLEANING AND DISPOSAL

1. All surfaces in the work area should be vacuumed and thoroughly cleaned daily for the duration of the sanding project. Vacuum filter bags should be changed frequently.
2. Plastic drop cloths should be gathered up and disposed of along with any dust chips or other removal debris. They should be placed in sealed refuse receptacles and disposed of through regular trash pick-up procedures. During clean up, children and pregnant women should be kept away from the immediate work area.
3. All toys, washable furniture and utensils used by children should be washed thoroughly before being used again.

Tool Care

1. Keep your sander as clean as possible by wiping with a clean cloth and blowing air through it after every 5 hours of use.
2. As part of **CFS (Controlled Finishing System®)**, your sander is equipped with a replaceable disc (F) which is located between the pad (C) and the sander body (G). It is designed to increase the dust collection efficiency and control the pad speed while the unit is off the work surface. The disc is designed to be a consumable part and will occasionally need to be replaced. Replacement is necessary when the pad speed increases very dramatically when the unit is lifted from the work surface.

TO REPLACE YOUR CFS DISC (FIG. 6)

CAUTION: Turn off and unplug the tool before making any adjustments or removing or installing attachments or accessories. Be sure the switch is in the OFF position.

- a. Remove the three screws from the bottom of the pad.
 - b. Remove the pad (C).
 - c. Remove worn CFS disc (F).
 - d. To install the new CFS disc, place the spring side of the disc toward the sander.
 - e. Align the notches (H) on the CFS disc with the seams in the sander body.
 - f. Replace the pad and the three screws. Be careful not to over-tighten screws.
3. Don't use harsh chemicals or solvents to clean the tool. These chemicals could seriously damage the plastic components of your sander.
 4. Avoid overloading your sander. Overloading will result in a considerable reduction in speed and finish quality of your work. The unit may also become hot. In this event, run sander at a no load condition for a minute or two.
 5. If you wrap the cord around the tool when you store it, leave a generous loop of cord such that the strain relief does not bend. This helps prevent premature cord failure.

Brush Replacement (Fig. 8, 9)

CAUTION: Turn off and unplug the tool before making any adjustments or removing or installing attachments or accessories. Be sure the switch is in the OFF position.

TO REPLACE BRUSHES

1. Remove the three screws from the top cap and lift off top cap, as shown in Figure 8.
2. Pull the brush spring (I) back (be careful not to pull completely off) and slide out the old brush.
3. Pull the brush wire (J) which is connected to the brush, out of the motor field (K).
4. Plug the new brush wire back into the motor field.
5. Still holding the brush spring back, slide in the new brush with the wire coming out the top of the brush and release the brush spring.
6. Repeat steps 1-5 for the second brush.
7. Replace the top cap and tighten the three screws. Be careful not to over-tighten screws.
8. Always replace both brushes.

Lubrication

Self lubricating bearings are used in the tool and periodic relubrication is not required. However, it is recommended that, once a year, you take or send the tool to a service center for a thorough cleaning and inspection.

Repairs

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

ACCESSORIES

CAUTION: Use only impact sockets. Non-impact sockets may break and cause a hazardous condition. Inspect sockets prior to use to ensure that it contains no cracks.

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., 20 Fletcher Road, Mooroolbark, VIC 3138 Australia or call 1800 654 155.

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

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.

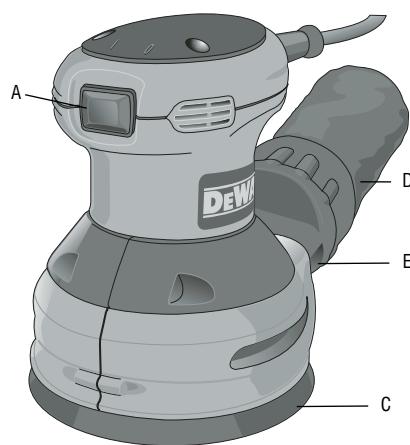
For warranty repair information, call 1800 654 155.

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).

FIG. 1 D26450-XE, D26451-XE



D26453-XE

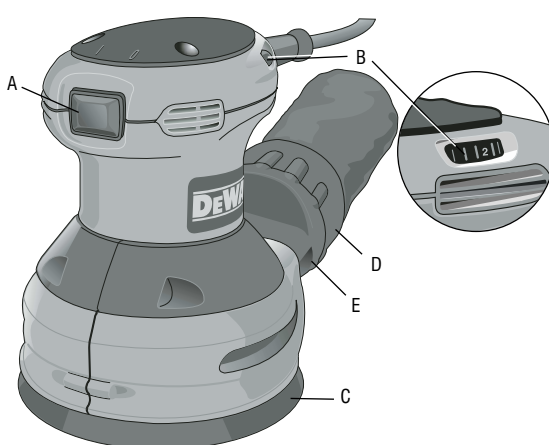


FIG. 2

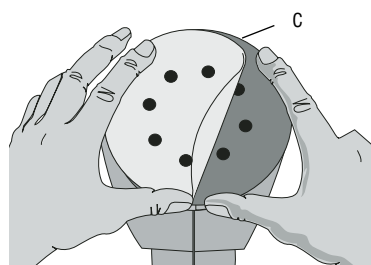


FIG. 3

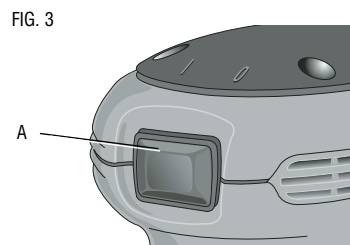


FIG. 4

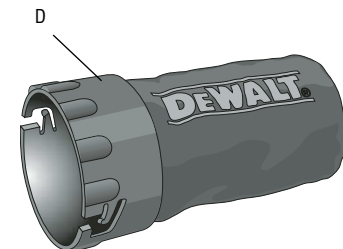
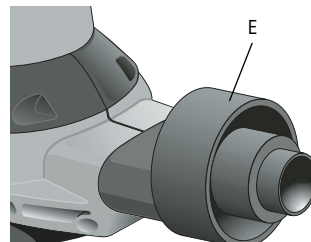


FIG. 5A

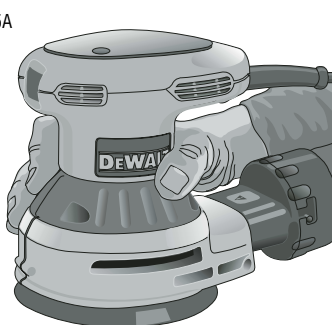


FIG. 5B

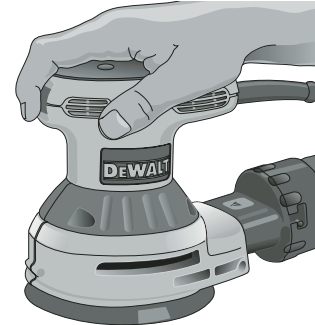


FIG. 6

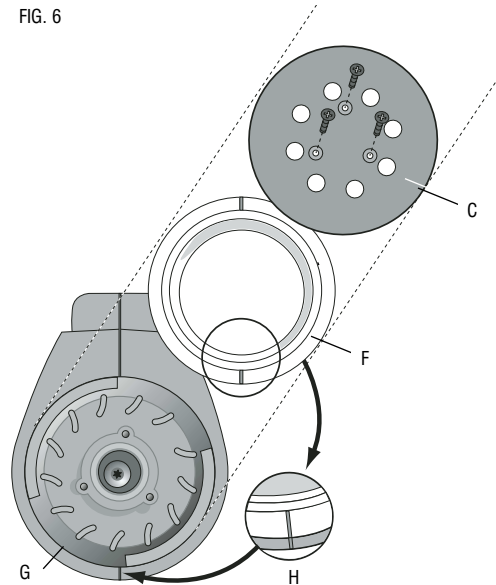


FIG. 7

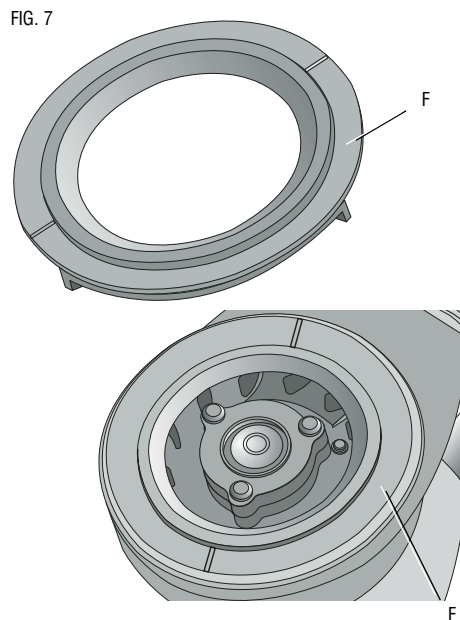


FIG. 8

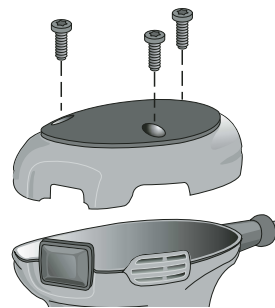
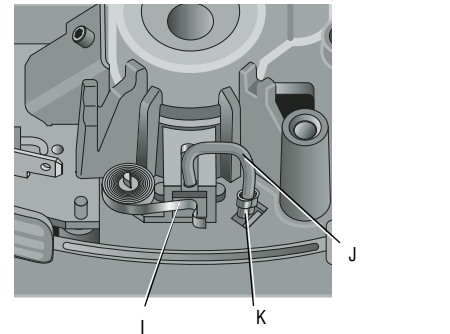


FIG. 9



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 than 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.

