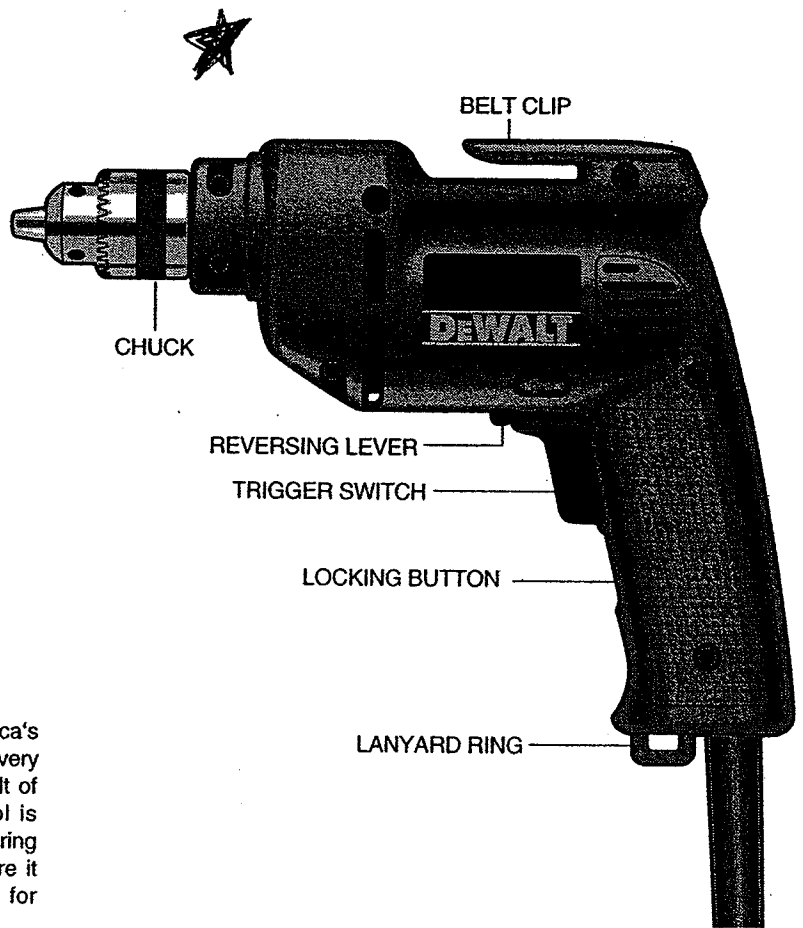


IF YOU HAVE ANY QUESTIONS OR COMMENTS ABOUT THIS, OR ANY DeWALT TOOL, CALL US TOLL FREE AT 1-800-433-9258 (1-800-4-DeWALT).

Serial Number from Nameplate	Date of Purchase
_____	_____
Save this information for future reference.	

DeWalt DW 100
3/8" VSR
Drill



DeWalt...Built Jobsite Tough

DeWALT high performance industrial tools are made for America's toughest industrial and construction applications. The design of every tool in the line – from drills to sanders to grinders – is the result of rigorous use on jobsites and throughout industry. Each tool is produced with painstaking precision using advanced manufacturing systems and intense quality control. Every tool is checked before it leaves the factory to make sure that it meets your standards for durability, reliability and power.

DeWALT Built Jobsite Tough...WE GUARANTEE IT.

Motor Brushes

DeWALT uses an advanced brush system which automatically stops the drill when the brushes wear out. This prevents serious damage to the motor.

Switches

To start drill, depress trigger switch; to stop drill, release trigger. To lock trigger in "ON" position for continuous operation, depress trigger and push up locking button "A" Figure 1, then gently release trigger. To release locking mechanism, depress trigger fully, then release it. Before using the tool (each time) be sure that the locking button release mechanism is working freely.

Do not lock the switch "ON" when drilling by hand so that you can instantly release the trigger switch if the bit binds in the hole.

The locking button is for use only when the drill is mounted in a drill press stand or otherwise held stationary.

Be sure to release the locking button before disconnecting the plug from the power supply. Failure to do so will cause the tool to start immediately the next time it is plugged in. Damage or injury could result.

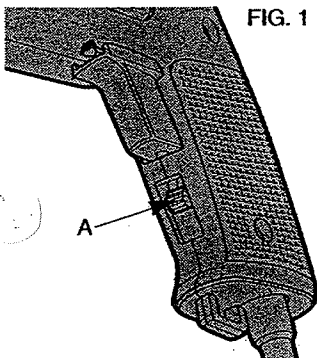


FIG. 1

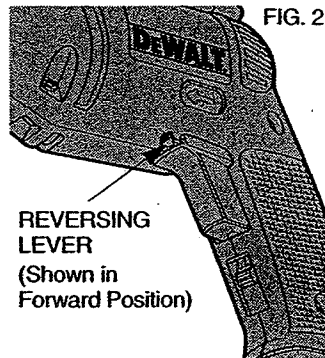


FIG. 2

THE VARIABLE SPEED TRIGGER SWITCH permits speed control – the farther the trigger is depressed, the higher the speed of the drill. **NOTE:** Use lower speeds for starting holes without a center punch, drilling in metal or plastics, driving screws or drilling ceramics. Higher speeds are better for drilling wood and composition boards, and for using abrasive and polishing accessories.

THE REVERSING LEVER is used for withdrawing bits from tight holes and removing screws. It is located above the trigger switch (Fig. 2). To reverse the motor, release the trigger switch **FIRST** and then push the lever to the right. After any reversing operations, return lever to forward position.

Operation

DRILLING

1. Always unplug the drill when attaching or changing bits or accessories.
2. Use sharp drill bits only. For **WOOD**, use twist drill bits, spade bits, power auger bits, or hole saws. For **METAL**, use high speed steel twist drill bits or hole saws. For **MASONRY**, such as brick, cement, cinder block, etc., use carbide-tipped bits.
3. Be sure the material to be drilled is anchored or clamped firmly. If drilling thin material, use a wood "back-up" block to prevent damage to the material.
4. Always apply pressure in a straight line with the bit. Use enough pressure to keep drill biting, but do not push hard enough to stall the motor or deflect the bit.
5. Hold tool firmly to control the twisting action of the drill.
6. **IF DRILL STALLS**, it is usually because it is being overloaded or improperly used. **RELEASE TRIGGER IMMEDIATELY**, remove drill bit from work, and determine cause of stalling. **DO NOT CLICK TRIGGER OFF AND ON IN AN ATTEMPT TO START A STALLED DRILL — THIS CAN DAMAGE THE DRILL.**

- To minimize stalling or breaking through the material, reduce pressure on drill and ease the bit through the last fractional part of the hole.
- Keep the motor running when pulling the bit back out of a drilled hole. This will help prevent jamming.
With Variable Speed Drills there is no need to center punch the point to be drilled. Use a slow speed to start the hole and accelerate by squeezing the trigger harder when the hole is deep enough to drill without the bit skipping out.

Drilling in Metal

Use a cutting lubricant when drilling metals. The exceptions are cast iron and brass which should be drilled dry. The cutting lubricants that work best are sulfurized cutting oil or lard oil; bacon-grease will also serve the purpose.

Drilling in Wood

Holes in wood can be made with the same twist drills used for metal. These bits may overheat unless pulled out frequently to clear chips from the flutes. For larger holes, use Power Drill Wood Bits. Work that is apt to splinter should be backed up with a block of wood.

Drilling in Masonry

Use carbide tipped masonry bits at low speeds. Keep even force on the drill but not so much that you crack the brittle materials. A smooth, even flow of dust indicates the proper drilling rate.

Bubble Level

Your drill is equipped with a bubble level that assists you in drilling level holes.

For horizontal drilling, tilt the drill up or down as required so that the bubble floats in the center of the parallel lines drawn on the glass. When the bubble is centered between the lines, as shown in Figure 3A, the drill

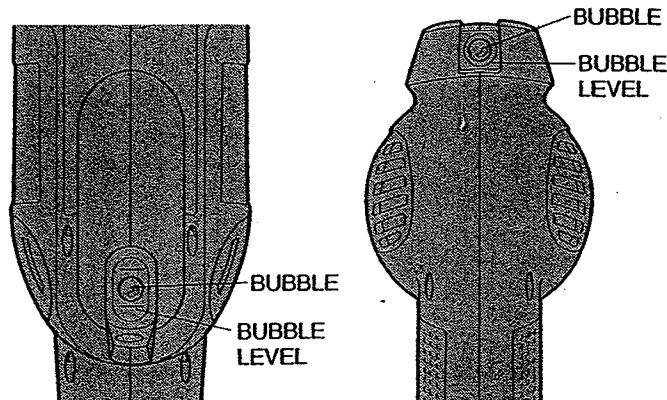


FIG. 3A

FIG. 3B

is level.

For vertical drilling, align the drill so that the bubble floats in the center of the bull's-eye, as shown in Figure 3B.

To assure accuracy, first place a level on your work piece and position it so that it is level. Then, when the drill reads level, the two will be aligned. (Any bubble level can only indicate level to the earth's surface.)

NOTE: The level is filled with mineral oil that may cause minor skin irritation when contacted. If the level breaks and this fluid gets on your skin, rinse thoroughly with water. If any liquid gets in your eyes, rinse thoroughly with water and call a physician immediately.

Chuck

Open chuck jaws by turning collar with fingers and insert shank of bit about 3/4" into chuck. Tighten chuck collar by hand. Place chuck key in each of the three holes, and tighten in clockwise direction. It's important to tighten chuck with all three holes. To release bit, turn chuck counter clockwise in just one hole, then loosen the chuck by hand.

- 4

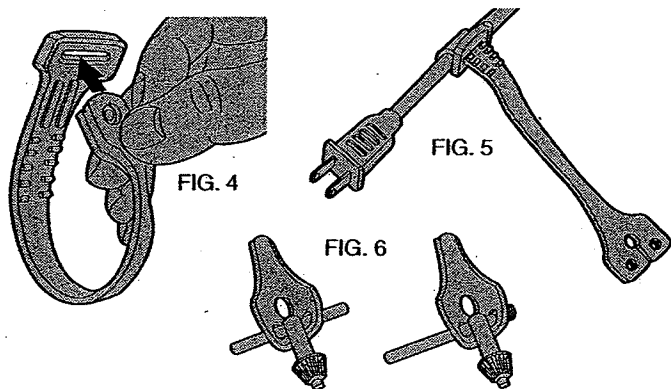


FIG. 4

FIG. 5

FIG. 6

Chuck Key Holder

(May be installed already.)

- Push double-hole end of holder through the slot in other end of holder (Figure 4.)
- Slip loop over electric plug and draw loop tight around cord (Figure 5.)
- Push ends of Chuck Key Handle through two holes in end of holder (Figure 6.)

Chuck Removal

Insert chuck key in any one of the three holes in the chuck, as shown in Figure 7. Strike the key sharply in the counterclockwise direction (when viewed from the front of the tool). This will loosen the chuck so that it can be removed by hand.

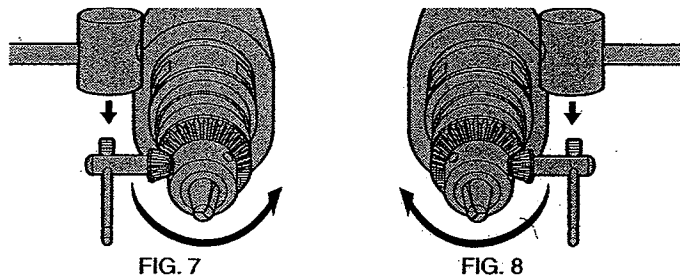


FIG. 7

FIG. 8

Chuck Installation

Screw the chuck on by hand as far as it will go. Place the chuck key in any of the three holes in the chuck and strike it sharply in the clockwise direction (when viewed from the front of the tool) as shown in Figure 8. (145-160 in. lbs. of torque is recommended.)

Lubrication

When the tool is taken apart for motor brush replacement a small amount of grease should be added (or redistributed from that remaining in housing) to the gears.

The ball bearings used in this tool are lubricated during manufacture and require no lubrication.

Important

To assure product SAFETY and RELIABILITY, repairs, maintenance and adjustment should be performed by Black & Decker (U.S.) Inc. Industrial Service Centers or other qualified service organizations. These service organizations service DEWALT tools always using DEWALT replacement parts.

DEWALT tools are serviced by the Industrial Tool Division of Black & Decker (U.S.) Inc.

Accessories

Recommended accessories for use with your tool are available at extra cost from your local service center. A complete listing of service centers is included with your tool.

If you need assistance in locating any accessory, please contact DEWALT Industrial Tool Company, P.O. Box 158, 626 Hanover Pike, Hampstead, MD 21074 or call 1-800-433-9258.

Recommended accessories for your Drill are shown in this manual. (CAUTION: The use of any other accessory might be hazardous.) For safety in use, the following accessories should be used only in sizes up to the maximums shown in the table below.

Maximum Recommended Capacities

DRILL CAPACITY	3/8"
R.P.M.	0-2500
BITS, METAL DRILLING	3/8"
WOOD, FLAT BORING	1"
BITS, MASONRY DRILLING	1/2"
HOLE SAWS	1-1/8"

ACCESSORY MUST BE RATED FOR USE AT SPEED EQUAL TO OR HIGHER THAN NAMEPLATE R.P.M. OF TOOL WITH WHICH IT IS BEING USED.

WIRE WHEEL BRUSHES	4" Diameter Maximum
WIRE CUP BRUSHES	3" Diameter Maximum
BUFFING WHEELS	3" Diameter Maximum
RUBBER BACKING PADS	4-5/8" Diameter Maximum

Full Warranty

DEWALT heavy duty industrial tools are warranted for one year from date of purchase. We will repair, without charge, any defects due to faulty materials or workmanship. Arrangements have been made with the Industrial Tool Division of Black & Decker (U.S.) Inc. to provide warranty repairs for DEWALT tools. Please return the complete unit, transportation prepaid, to any Black & Decker (U.S.) Inc. Industrial Service Center or Authorized Service Station listed under "Tools, Electric" in the Yellow Pages. 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 from state to state.

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

30 DAY NO RISK SATISFACTION GUARANTEE

If you are not completely satisfied with the performance of your DEWALT heavy duty industrial tool, simply return it to the participating seller within 30 days for a full refund. Please return the complete unit, transportation prepaid. Proof of purchase may be required.

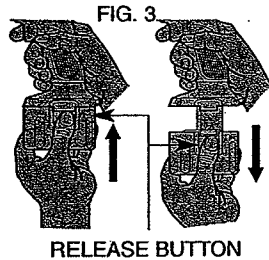
CAUTION: Never attempt to open the battery pack for any reason. If the plastic housing of the battery pack breaks or cracks, return to a service center for recycling.

OPERATION

Installing and Removing the Battery Pack (Fig. 3)

NOTE: Make sure your battery pack is fully charged.

To install the battery pack into the tool handle, align the base of the tool with the notch inside the tool's handle and slide the battery pack firmly into the handle until you hear the lock snap into place as shown.



To remove the battery pack from the tool, press the release buttons and firmly pull the battery pack out of the tool handle. Insert it into the charger as described in the charger section of this manual.

Variable Speed Switch (Fig. 4)

To turn the tool on, squeeze the trigger switch. To turn the tool off, release the trigger switch. Your tool is equipped with a brake. The chuck will stop as soon as the trigger switch is fully released.

The variable speed switch enables you to select the best speed for a particular application. The farther you squeeze the trigger, the faster the tool will operate. Use lower speeds for starting holes without a centerpunch, drilling in metals or plastics, driving screws and drilling ceramics, or in any application requiring high torque. Higher speeds are better for drilling in wood, wood compositions and for using abrasive and polishing accessories. For maximum tool life, use variable speed only for starting holes or fasteners.

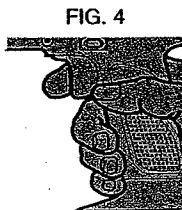


FIG. 5 Depress for Reverse Depress for Forward



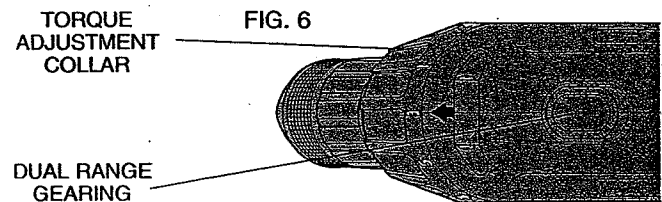
NOTE: Continuous use in variable speed range is not recommended. It may damage the switch and should be avoided.

Forward/Reverse Control Button (Fig. 5)

A forward/reverse control button determines the direction of the tool and also serves as a lock off button. To select forward rotation, release the trigger switch and depress the forward/reverse control button on the right side of the tool. To select reverse, depress the forward/reverse control button on the left side of the tool. The center position of the control button locks the tool in the off position. When changing the position of the control button, be sure the trigger is released. **NOTE:** The first time the tool is run after changing the direction of rotation, you may hear a click on start up. This is normal and does not indicate a problem.

Torque Adjustment Collar (Fig. 6)

The torque adjustment collar is clearly marked with numbers and a drill bit symbol. The collar should be rotated until the desired setting is located at the top of the tool, (FIG. 6). Locators are provided in the collar to eliminate the guess work when selecting fastening torque. The



7

DeWalt Cordless

higher the number on the collar, the higher the torque and the larger the fastener which can be driven. To lock the clutch for drilling operations, move to the drill bit position.

NOTE: When using the Drill/Driver for drilling holes, be sure that the Torque Adjusting Collar is set so the figure of the drill is aligned with the arrow on the top of the tool. Failure to do this will allow the clutch to slip while attempting to drill.

Dual Range Gearing (Fig. 6)

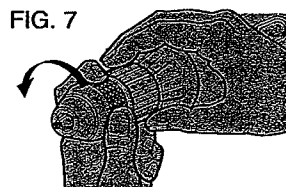
The dual range feature of your Driver/Drill allows you to shift gears for greater versatility.

To select the low speed, high torque setting, turn the tool off and permit to stop. Slide the gear shifter forward (towards the chuck) as shown in FIG. 6. To select the high speed, low torque setting, turn the tool off and permit to stop. Slide the gear shifter back (away from the chuck).

NOTE: Do not change gears when the tool is running. If you are having trouble changing gears, make sure that the dual range gear shifter is either completely pushed forward or completely pushed back.

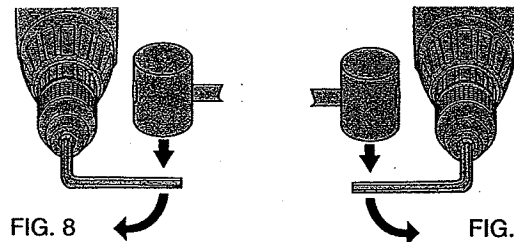
Keyless Chuck (Fig. 7)

Your tool features a keyless chuck for greater convenience. To insert a drill bit or other accessory, follow the steps listed below.



1. Grasp the rear half of the chuck with one hand and use your other hand to rotate the front half counter-clockwise, as shown. Rotate far enough so that the chuck is sufficiently to accept the desired accessory.
2. Insert the bit or other accessory about 3/4" into the chuck and tighten securely by holding the rear half of the chuck and rotating the front portion in the clockwise direction.

To release the accessory, repeat steps 1 and 2 listed above.



WARNING: Do not attempt to tighten drill bits (or any other accessory) by gripping the front part of the chuck and turning the tool on. Damage to the chuck and personal injury may result. Always lock off trigger switch when changing accessories.

Chuck Removal (Fig. 8)

Turn the adjustment collar to the "drill" position and low speed gear shifter position 1. Tighten the chuck around the shorter end of a hex key (not supplied) (5/16" hex key for a 3/8" capacity chuck and 3/8" hex key for a 1/2" capacity chuck.) Using a wooden mallet or similar object, strike the longer end in the clockwise direction, as shown in FIG. 8. This will loosen the screw inside the chuck.

Open chuck jaws fully, insert screwdriver (or Torx tool if required) into front of chuck between jaws to engage screw head. Remove screw by turning clockwise (left-hand-thread). This will loosen the chuck so that it can be unscrewed by hand.

Chuck Installation (Fig. 9)

Screw the chuck on by hand as far as it will go and insert screw (left-hand-thread). Tighten screw securely. Tighten the chuck around the shorter end of a hex key (not supplied) (5/16" hex key for a 3/8" capacity chuck and 3/8" hex key for a 1/2" capacity chuck). Strike the longer end in the clockwise direction with a wooden mallet, as shown in FIG. 9. Remove hex key from chuck.

Operation as a Drill

Turn the collar to the drill bit symbol. Install and tighten the desired drill bit in the chuck. Select the desired speed/torque range using the dual range gear shifter to match the speed and torque to the planned operation. Follow these instructions for best results when drilling.

DRILLING

1. Use sharp drill bits only. For WOOD, use twist drill bits, spade bits, power auger bits, or hole saws. For METAL, use high speed steel twist drill bits or hole saws. For MASONRY, such as brick, cement, cinder block, etc., use carbide-tipped bits.
2. Be sure the material to be drilled is anchored or clamped firmly. If drilling thin material, use a "back-up" block to prevent damage to the material.
3. Always apply pressure in a straight line with the bit. Use enough pressure to keep the drill bit biting, but do not push hard enough to stall the motor or deflect the bit.
4. Hold tool firmly to control the twisting action of the drill.
5. IF DRILL STALLS, it is usually because it is being overloaded. RELEASE TRIGGER IMMEDIATELY, remove drill bit from work, and determine cause of stalling. DO NOT CLICK TRIGGER OFF AND ON IN AN ATTEMPT TO START A STALLED DRILL - THIS CAN DAMAGE THE DRILL.
6. To minimize stalling upon breaking through the material, reduce pressure on drill and ease the bit through the last fractional part of the hole.
7. Keep the motor running when pulling the bit back out of a drilled hole. This will help prevent jamming.
8. With variable speed drills there is no need to center punch the point to be drilled. Use a slow speed to start the hole and accelerate by squeezing the trigger harder when the hole is deep enough to drill without the bit skipping out. Operate at full-on after starting the bit.

Drilling in Wood

Holes in wood can be made with the same twist drills used for metal. These bits may overheat unless pulled out frequently to clear chips from the flutes. For larger holes, use low speed wood bits. Work that is likely to splinter should be backed up with a block of wood.

Drilling in Metals

Use a cutting lubricant when drilling metals. The exceptions are cast iron and brass which should be drilled dry. The cutting lubricants that work best are sulphurized cutting oil or lard oil; bacon grease will also serve the purpose.

Drilling Masonry

Use carbide tipped masonry bits at low speeds. Keep even force on the drill but not so much that you crack the brittle materials. A smooth, even flow of dust indicates the proper drilling rate.

Operation as a Screwdriver

Select the desired speed/torque range using the dual range gear shifter on the top of tool to match the speed and torque to the planned operation.

Insert the desired fastener accessory into the chuck as you would any drill bit. Make a few practice runs in scrap or unseen areas to determine the proper position of the clutch collar.

MAXIMUM RECOMMENDED CAPACITIES

	DW927, DW928, DW929	DW959
WOOD	1-1/2"	1-1/2"
STEEL	3/8"	1/2"
CONCRETE	3/16"	1/4"

9

Maintenance

CLEANING

With the motor running, blow dirt and dust out of all air vents with dry air at least once a week. Wear safety glasses when performing this. Exterior plastic parts may be cleaned with a damp cloth and mild detergent. Although these parts are highly solvent resistant, NEVER use solvents.

CHARGER CLEANING INSTRUCTIONS

⚠ WARNING: Disconnect the charger from the AC outlet before cleaning.

Dirt and grease may be removed from the exterior of the charger using a cloth or soft non-metallic brush. Do not use water or any cleaning solutions.

Accessories

Recommended accessories for use with your tool are available at extra cost from your local service center.

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

If you need any assistance in locating any accessory, please contact DeWALT Industrial Tool Co., 701 East Joppa Road, Baltimore, MD 21286 or call 1-800-4-DeWALT (1-800-433-9258).

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.

Full Warranty

DeWALT heavy duty industrial tools are warranted for one year from date of purchase. We will repair, without charge, any defects due to faulty materials or workmanship. For warranty repair information, call 1-800-4-DeWALT. 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:

30 DAY NO RISK SATISFACTION GUARANTEE

If you are not completely satisfied with the performance of your DeWALT heavy duty industrial tool, simply return it to the participating seller within 30 days for a full refund. Please return the complete unit, transportation prepaid. Proof of purchase may be required.

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