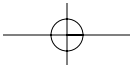
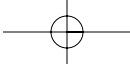


DEWALT Industrial Tool Company, P.O. Box 158, 626 Hanover Pike, Hampstead, MD 21074 Printed in U.S.A. (JAN95-CD-2) Form No. 158865
For Information call toll free between 8:00 a.m. to 8:00 p.m., seven days a week. 1-800-4-DEWALT (1-800-433-9258)

DW116/117

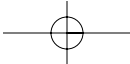
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DEWALT®

**INSTRUCTION MANUAL
DW116 1/2" V.S.R. Drill
DW117 1/2" V.S.R. Drill**



**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).**

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

MULTI-POSITION
SIDE HANDLE

1/2" KEYLESS
CHUCK

REVERSING
LEVER

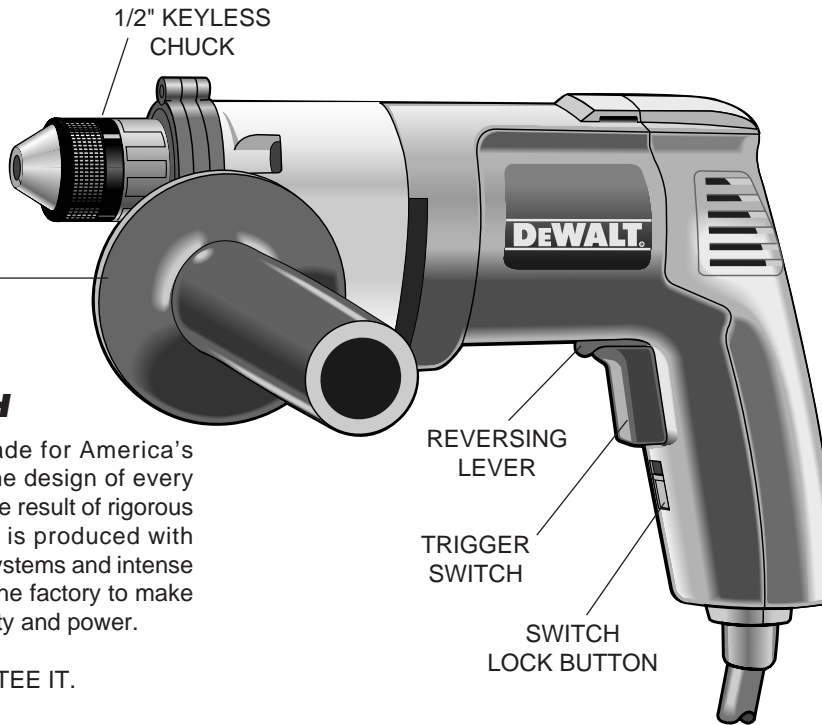
TRIGGER
SWITCH

SWITCH
LOCK BUTTON

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.



WARNING: When using electric tools, basic safety precautions should always be followed to reduce risk of fire, electric shock, and personal injury, including the following:

READ ALL INSTRUCTIONS

Double Insulation

Double insulated tools are constructed throughout with two separate layers of electrical insulation or one double thickness of insulation between you and the tool's electrical system. Tools built with this insulation system are not intended to be grounded. As a result, your tool is equipped with a two prong plug which permits you to use extension cords without concern for maintaining a ground connection.

NOTE: Double insulation does not take the place of normal safety precautions when operating this tool. The insulation system is for added protection against injury resulting from a possible electrical insulation failure within the tool.

CAUTION: WHEN SERVICING USE ONLY IDENTICAL REPLACEMENT PARTS. Repair or replace damaged cords.

Polarized Plugs

Polarized plugs (one blade is wider than the other) are used on equipment to reduce the risk of electric shock. When provided, this plug will fit into a polarized outlet only one way. If the plug does not fit fully into the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not change the plug in any way.

Safety Instructions For All Tools

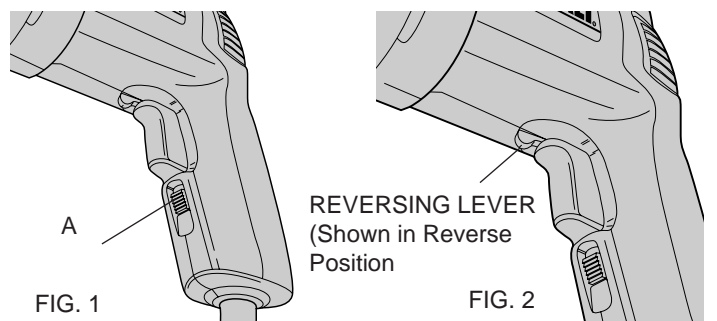
- **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite injuries.
- **CONSIDER WORK AREA ENVIRONMENT.** Don't expose power tools to rain. Don't use power tools in damp or wet locations. Keep work area well lit. Do not use tool in presence of flammable liquids or gases.
- **GUARD AGAINST ELECTRIC SHOCK.** Prevent body contact with grounded surfaces. For example; pipes, radiators, ranges, and refrigerator enclosures.
- **KEEP CHILDREN AWAY.** Do not let visitors contact tool or extension cord. All visitors should be kept away from work area.
- **STORE IDLE TOOLS.** When not in use, tools should be stored in dry, and high or locked-up place — out of reach of children.
- **DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was intended.
- **USE RIGHT TOOL.** Don't force small tool or attachment to do the job of a heavy-duty tool. Don't use tool for purpose not intended.
- **DRESS PROPERLY.** Do not wear loose clothing or jewelry. They can be caught in moving parts. Rubber gloves and non-skid footwear are recommended when working outdoors. Wear protective hair covering to contain long hair.
- **USE SAFETY GLASSES.** Also use face or dust mask if operation is dusty.
- **DON'T ABUSE CORD.** Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil, and sharp edges.

- **SECURE WORK.** Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate tool.
- **DON'T OVERREACH.** Keep proper footing and balance at all times.
- **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and if damaged, have repaired by authorized service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean, and free from oil and grease.
- **DISCONNECT OR LOCK OFF TOOLS** when not in use, before servicing, and when changing accessories, such as blades, bits, cutters.
- **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
- **AVOID UNINTENTIONAL STARTING.** Don't carry tool with finger on switch. Be sure switch is off when plugging in.
- **EXTENSION CORDS.** Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. The following table shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.

Volts	Minimum Gage for Cord Sets				
	Total Length of Cord in Feet				
120V	0-25	26-50	51-100	101-150	
240V	0-50	51-100	101-200	201-300	
Ampere Rating					
More Than		Not more Than		AWG	
0	-	6	18	16	14
6	-	10	18	16	12
10	-	12	16	16	12
12	-	16	14	12	Not Recommended

- **OUTDOOR USE EXTENSION CORDS.** When tool is used outdoors, use only extension cords intended for use outdoors and so marked.
- **STAY ALERT.** Watch what you are doing. Use common sense. Do not operate tool when you are tired.
- **CHECK DAMAGED PARTS.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center unless otherwise indicated elsewhere in this instruction manual. Have defective switches replaced by authorized service center. Do not use tool if switch does not turn it on and off.
- **CAUTION:** When drilling or driving into walls, floors or wherever live electrical wires may be encountered, **DO NOT TOUCH ANY METAL PARTS OF THE TOOL!** Hold the tool only by insulated grasping surfaces to prevent electric shock if you drill or drive into a live wire.

SAVE THESE INSTRUCTIONS



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.

Switch

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.

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 The reversing lever is used when backing out screws and jammed drill bits. To operate the tool in reverse, release the trigger switch and push the lever to the left (when viewed from the chuck end) as shown in Figure 2. To operate the drill in forward for drilling holes or driving screws (as well as other accessories) release the trigger switch and push the lever to the right (when viewed from the chuck end).

Return the reversing lever to the forward position after all operations in reverse are completed.

Operation

DRILLING

NOTE: Always use side handle and two-handed grip when operating this drill.

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 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.

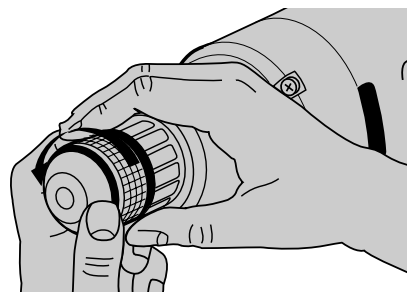
4. Always apply pressure in a straight line with the bit. Use enough pressure to keep drill biting, but do not push hard enough to stall the motor or deflect the bit.
5. Hold tool firmly to control the twisting action of the drill.
6. **IF DRILL STALLS**, it is usually because it is being overloaded 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.**
7. To minimize stalling or breaking through the material, reduce pressure on drill and ease the bit through the last fractional part of the hole.
8. Keep the motor running when pulling the bit back out of a drilled hole. This will help prevent jamming.
9. 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.

Keyless Chuck

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

1. Unplug the drill.
2. Grasp the rear half of the chuck with one hand and use your other hand to rotate the front half counterclockwise, as shown in Figure 3. Rotate far enough so that the chuck opens sufficiently to accept the desired accessory.
3. 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 step 2 listed above.

FIG. 3



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.

Drilling in Metal

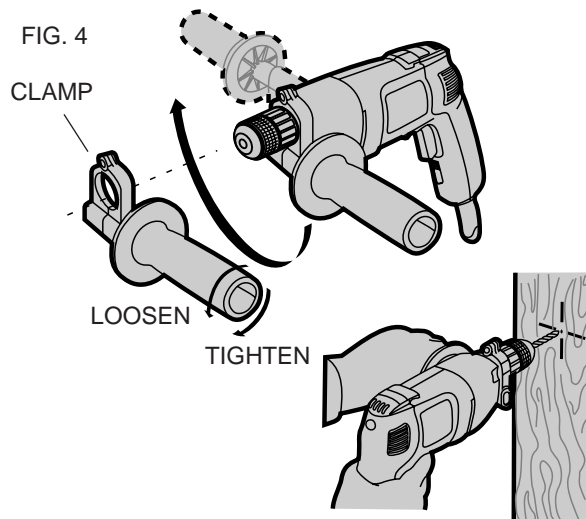
Use a cutting lubricant when drilling metals. The exceptions are cast iron and brass which should be drilled dry. The cutting lubricants that work best are sulfurized cutting oil or lard oil; bacon-grease will also serve the purpose.

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.



Side Handle

TURN OFF AND UNPLUG DRILL.

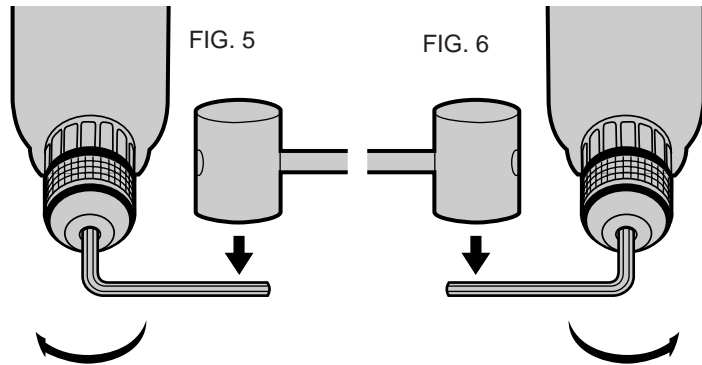
CAUTION: Always use side handle and hold drill with both hands. A side handle is supplied with your drill. To install the side handle, loosen the handle as shown in Figure 4 until the clamp portion fits past the chuck. Slide the clamp fully past the chuck and onto the front of the gear case, as shown in Figure 4. It can be rotated 360 degrees to permit right or left hand use. Position the side handle as desired and firmly tighten the handle, as shown in Figure 4.

Chuck Removal

Unplug the drill. Tighten the chuck around the shorter end of a hex key (not supplied) of 1/4" or greater size. Using a soft hammer or piece of wood, strike the longer end in the clockwise direction, as shown in Figure 5.

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). Place hex key in chuck as shown in Figure 6. Using a wooden mallet or similar object, strike key sharply in the counterclockwise direction. This will loosen the chuck so that it can be unscrewed by hand.



Chuck Installation

Screw the chuck on by hand as far as it will go. Tighten the chuck around the shorter end of a 1/4" or larger hex key (not supplied) strike the longer end in the clockwise direction with a soft hammer, as shown in Figure 5. Insert screw into center of chuck and tighten (counterclockwise) securely.

Important

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

Black & Decker (U.S) Inc. industrial tool service centers are certified for servicing DeWALT industrial tools.

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 on the owner's registration card packed 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 1-800-4-DeWALT (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

CHUCK CAPACITY	1/2"
R.P.M. DW116	0-600
R.P.M. DW117	0-900
BITS, METAL DRILLING	1/2"
WOOD, FLAT BORING	1-3/4"
BITS, MASONRY DRILLING	9/16"
HOLE SAWS	3"

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.



**See 'Tools-Electric'
– Yellow Pages –
for Service & Sales**

Other DEWALT Heavy Duty Industrial Tools Available From Your Local Dealer

DW944K 9.6V Heavy Duty Versa-Clutch Cordless 3/8" Driver/Drill Kit with Keyless Chuck:

High performance industrial Versa-Clutch cordless Driver/Drill has two variable speed ranges and reversing to perform well in a wide variety of metals and wood. The extremely versatile cordless Driver/Drill has 11 clutch settings, a keyless chuck and delivers more power and torque than any cordless drill in its class. Also available:

DW945K 12.0V Heavy Duty Versa-Clutch Cordless 3/8" Driver/Drill Kit with Keyless Chuck

DW942R 7.2V Heavy Duty Cordless 3/8" VSR Drill

DW360 Heavy Duty 7-1/4" Circular Saw with Electric Brake:

High performance industrial saw has a 13 amp rating and a 2 second electric brake. It has a 50 degree bevel capacity and steel helical gears to assure long term reliability. It delivers more watts out and more torque than other saws in its class.



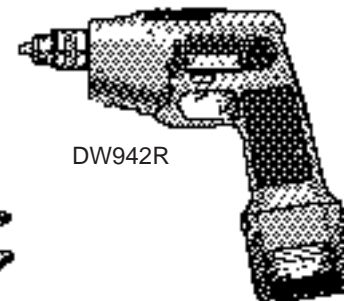
DW944K



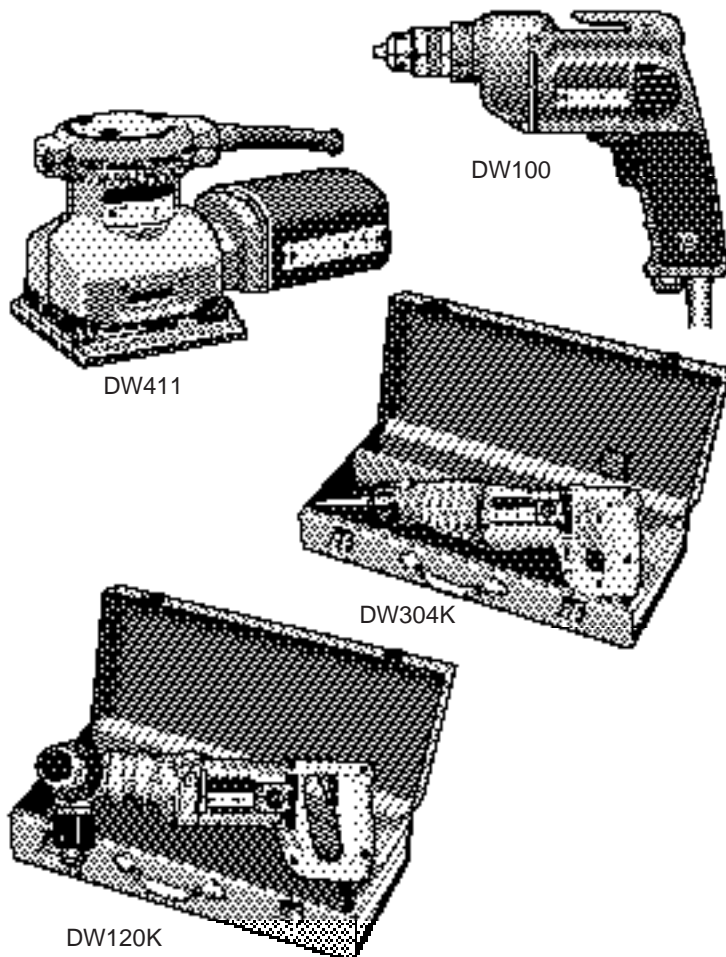
DW945K



DW360



DW942R



Other DeWALT Heavy Duty Industrial Tools Available From Your Local Dealer

DW100 Heavy Duty 3/8" VSR Drill:

High performance industrial quality variable speed reversing drill is designed for long life in heavy-duty professional use. High speed (0-2500 RPM) and 4.0 amps enable the drill to perform well in a wide variety of metals, wood, masonry and composite materials. It also has a built-in 2-way bubble level for drilling accuracy.

DW411 Heavy Duty 1/4 Sheet Palm Grip Sander:

High performance industrial palm grip sander has efficient through-the-pad dust collection. Low vibration design delivers less than half the vibration of other palm sanders for greater comfort and durability. The sander gives fast and efficient material removal.

DW304K Heavy Duty VS Reciprocating Saw Kit:

High performance industrial reciprocating saw has low vibration design to reduce user fatigue. High power (6.0 amps and 1 1/8" stroke length) allows increased productivity. Lightweight and comfortable.

DW120K Heavy Duty 1/2" Right Angle Drill Kit:

High performance industrial right angle drill is reversing and has three speeds (400/600/900 RPM) for plumbing and electrical applications. Powerful 7.0 amp motor easily handles popular 2 9/16" self-feed bits.