INSTRUCTION MANUAL



DW616. DW618 **Router System**

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.

Definitions: Safety Guidelines

The definitions below describe the level of severity for each signal word. Please read the manual and pay attention to these symbols.

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

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

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

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

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

General Power Tool Safety Warnings

WARNING! Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

1) WORK AREA SAFETY

a) Keep work area clean and well lit. Cluttered or 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) 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.
- b) 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 arounded.
- c) Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- d) 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.
- If operating a power tool in a damp location is unavoidable, use a ground fault f) circuit interrupter (GFCI) protected supply. Use of a GFCI reduces the risk of electric shock

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 personal protective equipment. Always wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c) Prevent unintentional starting. Ensure the switch is in the off position before connecting to power source and/or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.
- Remove any adjusting key or wrench before turning the power tool on. A wrench d) 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. f) Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.

Minimum Gauge for Cord Sets								
Ampere Rating		Volts	5 Total Length of Cord in Feet (meters)					
		120V	25 (7.6)	50 (15.2)	100 (30.5)	150 (45.7)		
		240V	50 (15.2)	100 (30.5)	200 (61.0)	300 (91.4)		
More Than	Not More Than	AWG						
0	6		18	16	16	14		
6	10		18	16	14	12		
10	12		16	16	14	12		
12	16	14 12 Not Recommended						

 ${f \hat{A}}$ WARNING: ALWAYS use safety glasses. Everyday eyeglasses are NOT safety glasses. Also use face or dust mask if cutting operation is dusty. ÁLWAYS WEAR CERTIFIED SAFETY EQUIPMENT:

- ANSI Z87.1 eye protection (CAN/CSA Z94.3),
- ANSI S12.6 (S3.19) hearing protection,
- NIOSH/OSHA/MSHA respiratory protection.

AWARNING: Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California 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.

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.

A WARNING: Use of this tool can generate and/or disperse 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.

AWARNING: Always wear proper personal hearing protection that conforms to ANSI S12.6 (S3.19) 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	А	amperes
Hz	hertz	W	watts
min	minutes	\sim or AC	alternating current
=== or DC.	direct current	≂ or AC/DC	alternating or direct current
	Class I Construction	п _О	no load speed
	(grounded)	n	rated speed
□	Class II Construction	⊜	earthing terminal
	(double insulated)	A	safety alert symbol
/min	per minute	BPM	beats per minute
IPM	impacts per minute	RPM	revolutions per minute
SPM	strokes per minute	sfpm	surface feet per minute

SAVE THESE INSTRUCTIONS FOR FUTURE USE

Motor

Be sure your power supply agrees with the nameplate marking. Voltage decrease of more than 10% will cause loss of power and overheating. DEWALT tools are factory tested; if this tool does not operate, check power supply.

COMPONENTS (Fig. 1)

A WARNING: Never modify the power tool or any part of it. Damage or personal injury could result.

- A. Quick release latch
- B. Depth adjustment ring
- C. Adjustable scale
- D. Locking lever
- E. Knob handle
- L. Detachable cordset
- M. Holes for universal edge guide
- N. D-handle trigger switch
- P. Turret stop
- O. Trigger lock button

g) If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection 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.
- 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 and/or the battery pack from the power tool 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 d) 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 tool's 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, 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) 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.

Additional Safety Rules for Routers

- Hold power tool by insulated gripping surfaces because the cutter may contact its own cord. Cutting a "live" wire may make exposed metal parts of the tool "live" and shock the operator.
- Use clamps or another practical way to secure and support the workpiece to a stable platform. Holding the work by your hand or against the body leaves it unstable and may lead to loss of control.
- Metal cutting with router: If using router for metal cutting, clean out tool often. Metal dust and chips often accumulate on interior surfaces and could create a risk of serious injury, electrical shock or death.
- Never run the motor unit when it is not inserted in one of the router bases. The motor is not designed to be handheld.
- Keep handles dry, clean and free from oil and grease. This will enable better control of the tool.
- Maintain a firm grip with both hands on the tool to resist starting torque. Maintain a firm grip on the tool at all times while operating.
- Keep hands away from cutting area above and below the base. Never reach under the workpiece for any reason. Keep the router base firmly in contact with the workpiece when cutting.
- Never touch the bit immediately after use. It may be extremely hot.
- Be sure that the motor has stopped completely before you lay the router down. If the bit is still spinning when the tool is laid down, it could cause injury or damage.
- Be sure that the router bit is clear of the workpiece before starting the motor. If the bit is in contact with the workpiece when the motor starts, it could make the router jump, causing damage or injury.
- Always follow the bit manufacturer's speed recommendations as some bit designs require specific speeds for safety or performance. If you are unsure of the proper speed or are experiencing any type of problem, contact the bit manufacturer.
- Do not use router bits with a diameter in excess of 2-1/2" (63 mm) in this tool.
- Do not hand-hold the router in an upside-down or horizontal position. The motor can separate from the base if not properly attached according to the instructions.
- Before starting the motor, check to see that the cord will not snag or impede the routing operation.
- Keep cutting pressure constant. Do not overload motor.
- Provide clearance under workpiece for bit when through-cutting.
- Do not press spindle lock button while the motor is running. Doing so can damage the spindle lock
- Always make sure the work surface is free from nails and other foreign objects. Cutting into a nail can cause the bit and the tool to jump.
- Air vents often cover moving parts and should be avoided. Loose clothes, jewelry or long hair can be caught in moving parts.
- An extension cord must have adequate wire size (AWG or American Wire Gauge) for safety. The smaller the gauge number of the wire, the greater the capacity of the cable, that is 16 gauge has more capacity than 18 gauge. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. When using more than one extension to make up the total length, be sure each individual extension contains at least the minimum wire size. The following table shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

- F. Subbase
- G. Speed dial (DW618 only)
- H. Guide pin groove
- I. Spindle lock button (DW618 only)
- J. Collet nut

INTENDED USE

This heavy-duty router is designed for professional routing applications.

DO NOT use under wet conditions or in presence of flammable liquids or gases. This is a professional power tool. DO NOT let children come into contact with the tool.

Supervision is required when inexperienced operators use this tool.

Switch (Fig. 1)

To turn the tool on, push the toggle switch (K) to the ON position indicated on the tool. To turn the tool off, push the toggle switch to the OFF position indicated on the tool.

Detachable Cord Set (Fig. 1A)

AWARNING: To reduce the risk of injury, turn unit off and disconnect it from power source before installing and removing cord set from motor or D-handle base. Before connecting cord set to power source, ensure the toggle switch (K) and the D-handle trigger switch (N) are in the OFF position. An accidental start-up can cause injury.

Insert the detachable cordset plug so that the key (W) is aligned with the notch (V) in the socket. Turn the plug clockwise one quarter turn to lock.

OPERATION

AWARNING: To reduce the risk of injury, turn unit off and disconnect it from power source before installing and removing accessories, before adjusting or when making repairs. An accidental start-up can cause injury.

A WARNING: Before connecting cord set to power source, ensure the toggle switch (K) and the D-handle trigger switch (N) are in the OFF position. An accidental start-up can cause injury.

AWARNING: Before starting the tool, clear the work area of all foreign objects. Check to see that the cord will not snag or impede the routing operation. Also keep firm grip on tool to resist starting torque.

General for All Bases

LOCKING LEVER ADJUSTMENT (FIG. 4)

You should be able to clamp the locking lever without excessive force. Excessive force may damage the base.

You should not be able to move the motor in the base when the locking lever is clamped. To adjust the locking lever's clamping force, open the locking lever (D) and turn the nut (Y) in small increments. Turning the nut clockwise tightens the lever while turning the nut counterclockwise loosens the lever.

CENTERING THE SUBBASE (FIG. 5)

If you need to adjust, change, or replace the subbase, a centering tool (DNP617-sold separately) is recommended (refer to **Accessories**). The centering tool consists of a cone and a pin. To adjust the subbase, follow the steps below

- 1. Loosen but do not remove the subbase screws so that the subbase can move freely.
- 2. Insert the pin into the collet and tighten the collet nut.
- 3. Insert the motor into the base and clamp the locking lever on the base.
- 4. Place the cone on the pin and lightly press down on cone until it stops as shown. This will center the subbase.
- 5. While holding down on the cone, tighten the subbase screws.

BIT INSTALLATION AND REMOVAL (FIG. 6)

- 1. To install a bit, insert the round shank of the desired router bit into the loosened collet as far as it will go and then pull it out about 1/16" (1.6 mm). Using the wrench(es) provided, turn the collet nut (J) clockwise while holding the spindle shaft with the second wrench. [On the DW618, depress the spindle lock button (I) to hold the spindle shaft.] Tighten the collet nut securely to prevent the bit from slipping.
- 2. To remove a bit, hold the spindle shaft while turning the collet nut (J) counterclockwise with the wrench provided. [Hold the spindle by depressing the spindle lock button (I) on the DW618.] The self-releasing collet nut will turn approximately 3/4 of a turn and then become tight again. At this point the bit cannot be removed. Continue turning the collet nut counterclockwise. This lifts the collet, allowing the bit's removal.

COLLETS

AWARNING: Projectile hazard. Only use bits with shanks that match the installed collet. Smaller shank bits will not be secure and could become loose during operation. A CAUTION: Never tighten the collet without first installing a router bit in it. Tightening an empty collet, even by hand, can damage the collet.

- Q. Depth adjustment rod
- R. Plunge lock lever
- S. Dust shroud
- T. Dust cap
- U. D-Handle

- K. Toggle switch

Two collets are included with the motor: one 1/4" (6.4 mm) and one 1/2" (13 mm). To change collet sizes, unscrew the collet assembly as described above. Install the desired collet by reversing the procedure. The collet and the collet nut are connected. Do not attempt to remove the collet from the collet nut.

NOTICE: Plunge Base Only—When tightening or changing collets, do not allow the wrenches to contact the plunge rods. If the rods are damaged, the plunge action will be restricted.

USING THE UNIVERSAL EDGE GUIDE (FIG 1)

The universal edge guide (DW6913) is available from your local retailer or service center at extra cost. Follow the assembly instructions included with the guide. Insert the two bars through the holes (M) in the router base. Adjust as needed for parallel routing.

DIRECTION OF FEED (FIG. 11)

The direction of feed is very important when routing and can make the difference between a successful job and a ruined project. Figure 11 shows the proper direction of feed for some typical cuts. A general rule to follow is to move the router in a counterclockwise direction on an outside cut and a clockwise direction on an inside cut.

Shape the outside edge of a piece of stock by following these steps:

- 1. Shape the end grain, left to right
- 2. Shape the straight grain side moving left to right
- 3. Cut the other end grain side
- 4. Finish the remaining straight grain edge

AWARNING: Avoid climb-cutting (cutting in direction opposite than shown in Figure 11). Climb-cutting increases the chance for loss of control resulting in possible injury. When climb-cutting is required (backing around a corner), exercise extreme caution to maintain control of router. Make smaller cuts and remove minimal material with each pass.

CHOOSING ROUTER SPEED (DW618 ONLY) (FIG. 12)

Refer to the **Speed Selection Chart** to choose a router speed. Turn the speed dial (G) to control router speed.

A WARNING: Do not operate tools rated "AC only" on a DC supply. Loss of speed control may result, causing tool damage and possible hazard to the operator.

AWARNING: If the speed control ceases to operate, or is intermittent, stop using the tool immediately. Take it to a DEWALT factory or authorized service facility for repair.

NOTICE: The router is equipped with electronics to monitor and maintain the speed of the tool while cutting. In low and medium speed operation, the speed control prevents the motor speed from decreasing. If you expect to hear a speed change and continue to load the motor, you could damage the motor by overheating. Reduce the depth of cut and/or slow the feed rate to prevent tool damage.

Set-up: Fixed and D-Handle Base

MOTOR QUICK RELEASE (FIG. 1)

- 1. Open the locking lever (D) on the base.
- 2. Grasp the base with one hand while depressing the quick release latches (A).
- 3. With the other hand, grasp the top of the motor unit and lift it from the base.
- INSERTING THE MOTOR INTO THE BASE (FIG. 1–3, 7)
- 1. Open the locking lever (D) on the base.
- 2. Thread the depth adjustment ring (B) onto the motor until the ring is about halfway between the top and bottom of the motor. Insert the motor into the base by aligning the groove on the motor (H) with the guide pins (X) on the base. Slide the motor down until the depth adjustment ring snaps into the quick release latches (A).

NOTE: Guide pin grooves are located on either side of the motor so that it can be positioned in two orientations.

3. Close the locking lever when the desired depth is achieved. For information on setting cutting depth, refer to *Adjusting the Depth of Cut*.

For D-Handle Base Only

- 4. Be sure that the trigger switch (N) is released and the trigger lock button (O) is in the unlocked and off position.
- 5. Unlock and disconnect the detachable cordset (L) from the motor.
- 6. Connect the detachable cordset (L) to bottom of D-Handle and lock the cord.
- 7. Connect the short cord (AA) from top of D-Handle to the motor as shown. Be sure the cord is locked.
- 8. Place the toggle switch in the ON position. This allows the trigger switch on the D-handle to control the router.

ADJUSTING THE DEPTH OF CUT (FIG. 1, 3)

- 1. Select and install the desired bit. See the heading **Bit Installation and Removal**.
- 2. Place the router on its base on the work piece.
- 3. Open the locking lever (D) and turn the depth adjustment ring (B) until the bit just touches the work piece. Turning the ring clockwise raises the cutting head while turning it counterclockwise lowers the cutting head.
- 4. Move the adjustable scale clockwise so that 0 on the scale is located exactly above the pointer (Z) on the base.
- 5. Turn the depth adjustment ring along with the adjustable scale to the desired depth. Note that each mark on the adjustable scale represents a depth change of 1/64" or .015" (0.4 mm).
- 6. Close the locking lever (D).

Operation: Fixed and D-Handle Base

GRIPPING LOCATIONS (FIG. 1)

Fixed Handle Base: Grip both knob handles (E) while operating.

D-Handle Base: Grip D-Handle (U) and knob handle (E) while operating.

The D-Handle router base has two positions for the knob to accommodate right or left hand use.

TRIGGER LOCK (FIG. 1) D-Handle Base Only

To lock the trigger, pull the trigger switch (N) completely, then push the trigger lock button (O).

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The router will remain on after you remove your finger from the trigger. To unlock the trigger lock button, pull the trigger and release. The lock button will pop out and the router will turn off.

Set-up: Plunge Base (Fig. 1, 8–10)

MOTOR QUICK RELEASE

- 1. Open the locking lever (D) on the base.
- 2. Grasp the top of the motor unit and lift it from the base.

INSERTING THE MOTOR INTO THE PLUNGE BASE

- 1. Remove the depth adjustment ring from the motor. It is not used with the plunge base.
- 2. Open the locking lever (D) on the base to ensure that the motor properly seats.
- 3. Ensure that the plunge lock lever (R) is locked.
- 4. Align the flat of the motor's end cap (BB) with pillar (CC) and insert the motor into the plunge base until it stops.
- 5. Close the locking lever (D).

ADJUSTING THE PLUNGE ROUTING DEPTH (FIG. 8)

- 1. Unlock the plunge mechanism by pushing up the plunge lock lever (R). Plunge the router down as far as it will go, allowing the bit to just touch the workpiece.
- 2. Lock the plunge mechanism by pushing the plunge lock lever (R) down.
- 3. Loosen the depth adjustment rod (Q) by turning the wingscrew (DD) counterclockwise.
- 4. Slide the depth adjustment rod (Q) down so that it meets the lowest turret stop (P).
- 5. Slide the tab (EE) on the depth adjustment rod down so that the top of it meets zero on the pillar scale (FF).
- 6. Grasping the top, knurled section of the depth adjustment rod (Q), slide it up so that the tab (EE) aligns with the desired depth of cut on the pillar scale (FF).
- 7. Tighten the wingscrew (DD) to hold the depth adjustment rod in place.
- 8. Keeping both hands on the handles, unlock the plunge mechanism by pushing the plunge lock lever (R) up. The plunge mechanism and the motor will move up. When the router is plunged, the depth adjustment rod will hit the turret stop, allowing the router to reach exactly the desired depth.

FINE ADJUSTMENT OF ROUTING DEPTH

The knurled knob (GG) at the bottom end of the depth adjustment rod can be used to make minor adjustments.

- 1. To decrease the cutting depth, rotate the knob clockwise (looking down from the top of the router).
- 2. To increase the cutting depth, rotate the knob counterclockwise (looking down from the top of the router).

NOTE: One complete rotation of the knob results in a change of about 5/128" or .04" (1 mm) in depth.

USING THE ROTATING TURRET STOP (FIG. 9)

AWARNING: Do not change the turret stop while the router is running. This will place your hands too near the cutter head.

The turret depth stop can be used to set 5 different depths. One of the turret stops is adjustable. To use the adjustable turret stop, loosen the nut (HH), then adjust the screw (II) to the desired height. Turning the screw counterclockwise will raise the screw which will decrease the cutting depth. The turret stop is useful for making deep cuts in several passes.

DUST EXTRACTION (FIG. 8, 10)

To connect the router to a vacuum cleaner for dust extraction, follow these steps:

- 1. Remove the dust cap (T) by pulling straight up.
- 2. Insert the dust extraction hose adapter (JJ) into the dust extraction port (KK) as shown.
- 3. Insert the end of a standard vacuum cleaner tube (LL) into the hose adapter.
- 4. When using dust extraction, be aware of the placement of the vacuum cleaner. Be sure that the vacuum cleaner is stable and that its hose will not interfere with the work.

Operation: Plunge Base

GRIPPING LOCATIONS (FIG. 1)

Grip both knob (E) handles while operating.

CUTTING WITH THE PLUNGE BASE (FIG. 8)

- **ACAUTION:** Turn the router on before plunging the cutter head into the workpiece.
- 1. Unlock the plunge lock lever (R).
- 2. Plunge the router down until the bit reaches the set depth.
- 3. Lock the plunge lock lever (R).
- 4. Perform the cut.
- 5. Unlock the plunge lock lever. This will allow the router bit to disengage the work.
- 6. Turn the router off.

MAINTENANCE

A WARNING: To reduce the risk of injury, turn unit off and disconnect it from power source before installing and removing accessories, before adjusting or when making repairs. An accidental start-up can cause injury.

Cleaning

A WARNING: Blow dirt and dust out of all air vents with clean, dry air at least once a week. To minimize the risk of eye injury, always wear ANSI Z87.1 approved eye protection when performing this.

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

NOTE FOR PLUNGE BASE ONLY: Use only a DRY cloth to wipe the plunge rods. These rods require no lubrication. Lubricants attract dust, reducing the performance of your tool.



PLUNGE BASE - BASE PLONGEANTE - BASE PARA PENETRACIÓN



MOTOR - BLOC MOTEUR - UNIDAD DEL MOTOR





FIG. 1A



D FIG. 6

FIG. 2

FIG. 3 B





FIG. 5





FIG. 9





FIG. 11







SPEED SELECTION CHART

DIAL SETTING	APPROX. RPM			
1	8,000			
2	12,000			
3	14,000			
4	18,000			
5	21,000			
6	24,000			

The speeds in this chart are approximate and are for reference only. Your router may not produce the exact speed listed for the dial setting. **A WARNING:** Always follow the bit manufacturer's speed recommendations as some bit designs require specific speeds for safety or performance. If you are unsure of the proper speed or are experiencing any type of problem, contact the bit manufacturer.