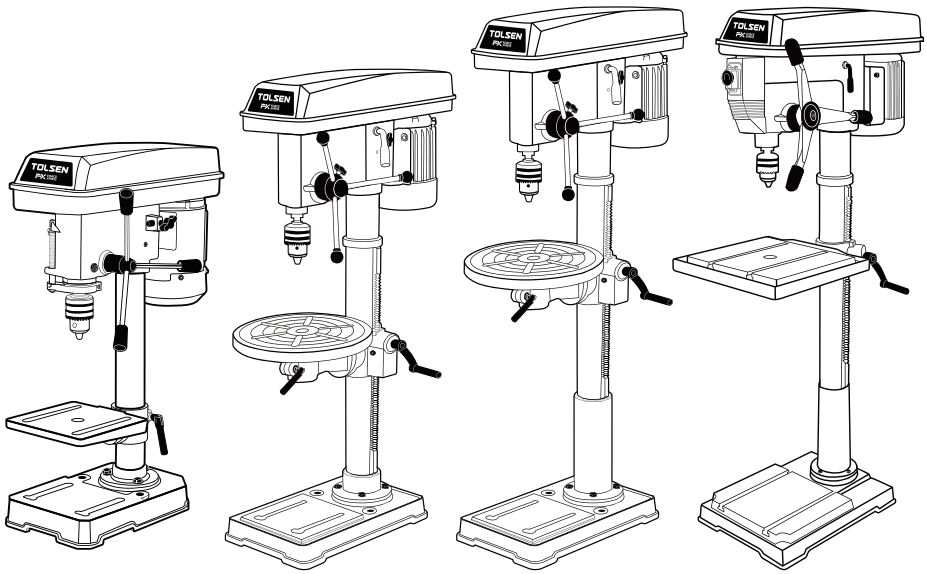
TOLSEN FX FORCE XPRESS

DRILL PRESS

INSTRUCTION MANUAL

110-120V~60Hz



79825 **79826** **79827** **79828**

SAVE THIS MANUAL !
You will need this manual for safety instructions, operating procedures and warranty.
Put it and the original sales receipt in a safe dry place for future reference.

IMPORTANT SAFETY INFORMATION

General Tool Safety Warnings

⚠ WARNING:

Read all safety warnings and 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.

1. **KEEP GUARDS IN PLACE** and in working order.
2. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
3. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
4. **DON'T USE IN DANGEROUS ENVIRONMENT.** Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well lighted.
5. **KEEP CHILDREN AWAY.** All visitors should be kept safe distance from work area.
6. **MAKE WORKSHOP KID PROOF** with padlocks, master switches, or by removing starter keys.
7. **DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was designed.
8. **USE RIGHT TOOL.** Don't force tool or attachment to do a job for which it was not designed.
9. **USE PROPER EXTENSION CORD.** 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.
10. **WEAR PROPER APPAREL.** Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair.
11. **ALWAYS USE SAFETY GLASSES.** Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.
12. **SECURE WORK.** Use clamps or a vise to hold work when practical. 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.
13. **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
14. **DISCONNECT TOOLS** before servicing; when changing accessories, such as blades, bits, cutters, and the like.
15. **REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure switch is in off position before plugging in.
16. **USE RECOMMENDED ACCESSORIES.** Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury to persons.
17. **NEVER STAND ON TOOL.** Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.
18. **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.

19. **DIRECTION OF FEED.** Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.
20. **NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF.** Don't leave tool until it comes to a complete stop.

GROUNDING INSTRUCTIONS

⚠ WARNING
TO PREVENT ELECTRIC SHOCK AND DEATH FROM INCORRECT GROUNDING WIRE CONNECTION READ AND FOLLOW THESE INSTRUCTIONS:

120V AC Grounded Tools: Tools with Three Prong Plugs

1. In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.
2. Do not modify the plug provided – if it will not fit the outlet, have the proper outlet installed by a qualified electrician.
3. Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.
4. Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.
5. Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug.
6. Repair or replace damaged or worn cord immediately.
7. The outlet must be properly installed and grounded in accordance with all codes and ordinances.
8. Do not use an adapter to connect this tool to a different outlet.

Drill Press Safety Warnings

For Your Own Safety Read Instruction Manual Before Operating Drill Press

1. Wear eye protection.
2. Do not wear gloves, necktie, or loose clothing.
3. Clamp workpiece or brace against column to prevent rotation.
4. Use recommended speed for drill accessory and workpiece material.

5. The included chuck key is specially designed to be self-ejecting, reducing the risk of ejecting at high speed. Only use the included chuck key or an identical replacement key.
6. The use of accessories or attachments not recommended by the manufacturer may result in a risk of injury to persons.
7. When servicing use only identical replacement parts.
8. Only use safety equipment that has been approved by an appropriate standards agency. Unapproved safety equipment may not provide adequate protection. Eye protection must be ANSI-approved and breathing protection must be NIOSH-approved for the specific hazards in the work area.
9. 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.
10. Maintain labels and nameplates on the tool. These carry important safety information. If unreadable or missing, contact TOLSEN Tools for a replacement.
11. Avoid unintentional starting.Prepare to begin work before turning on the tool.
12. People with pacemakers should consult their physician(s) before use. Electromagnetic fields in close proximity to heart pacemaker could cause pacemaker interference or pacemaker failure.
13. The warnings, precautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

Vibration Safety

This tool vibrates during use. Repeated or long-term exposure to vibration may cause temporary or permanent physical injury, particularly to the hands, arms and shoulders. To reduce the risk of vibration-related injury:

1. Anyone using vibrating tools regularly or for an extended period should first be examined by a doctor and then have regular medical check-ups to ensure medical problems are not being caused or worsened from use. Pregnant women or people who have impaired blood circulation to the hand, past hand injuries, nervous system disorders, diabetes, or Raynaud's Disease should not use this tool. If you feel any medical or physical symptoms related to vibration (such as tingling, numbness, and white or blue fingers), seek medical advice as soon as possible.
2. Do not smoke during use. Nicotine reduces the blood supply to the hands and fingers, increasing the risk of vibration-related injury.
3. Use tools with the lowest vibration when there is a choice between different processes.
4. Include vibration-free periods each day of work.
5. Grip tool as lightly as possible (while still keeping safe control of it). Let the tool do the work.
6. To reduce vibration, maintain the tool as explained in this manual. If any abnormal vibration occurs, stop use immediately.

SAVE THESE INSTRUCTIONS.

SPECIFICATIONS

Stock:79825

Electrical Rating	110-120V~60Hz
INPUT POWER	1/2Hp 350W
Spindle Speeds	620-2620/min 5 Speeds
Table Tilt	45° left and right
Swing	210mm
Spindle Stroke	50mm
Spindle Taper	B16
Chuck Capacity	1/2" 13mm

Stock: 79826/79827

Electrical Rating	110-120V~60Hz
INPUT POWER	3/4Hp 550W (79826) 1Hp 750W (79827)
Spindle Speeds	180-2770/min 16 Speeds
Table Tilt	45° left and right
Swing	325mm
Spindle Stroke	80mm
Spindle Taper	B16
Chuck Capacity	5/8" 16mm

Stock: 79828

Electrical Rating	110-120V~60Hz
INPUT POWER	2Hp 1500W
Spindle Speeds	150-2450/min 12 Speeds
Table Tilt	45° left and right
Swing	440mm
Spindle Stroke	120mm
Spindle Taper	B22
Chuck Capacity	1-1/4" 32mm

SETUP

Before Use

Read the ENTIRE IMPORTANT SAFETY INFORMATION section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

WARNING

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION: Turn the Power Switch of the tool off and unplug the tool from its electrical outlet before assembling or making any adjustments to the tool.

Note: For additional information regarding the parts listed in the following pages, refer to the Assembly Diagram near the end of this manual.

Mounting

Secure the tool to a supporting structure before use. Before assembly, bolt the Base to a flat, level, solid workbench capable of supporting the weight of the drill press and any workpieces. Verify that installation surface has no hidden utility lines before drilling or driving screws.

Assembly

Column to Base

1. Place Column (1) on the Base (5) and align holes in the Column with holes in the Base.
2. Attach using Bolt (2), Spring Washer (3), and Washer (4) in each hole through the Column and into the Base.

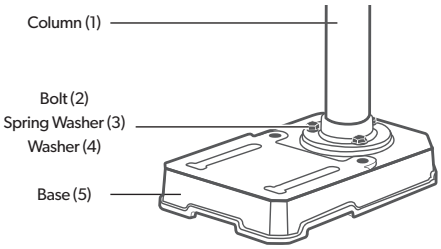


Figure A: Column to Base Connection

Table Support

1. Loosen the Pivot Lever (2).
2. Slide the Table Support (1) over the Column.
3. Tighten the Pivot Lever to secure the Table Support in place.

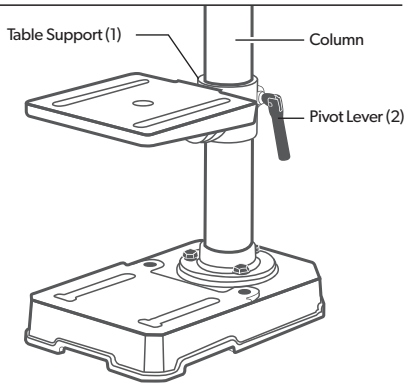


Figure B: Installing Table Support

Headstock and Feed Handles

1. Loosen the two Set Screws (2) on the right side of the Headstock (1) so they will stay clear while installing it.
2. With assistance, lift the Headstock above the Set Column, and gently slide it down the Column as far as it will go. Make sure the Headstock slides completely onto the Column.
3. Align the Headstock with the Base, and tighten the two Set Screws to secure the Headstock in place.
4. Thread the Feed Handles (4) into the Feed Seat (3) and tighten them.

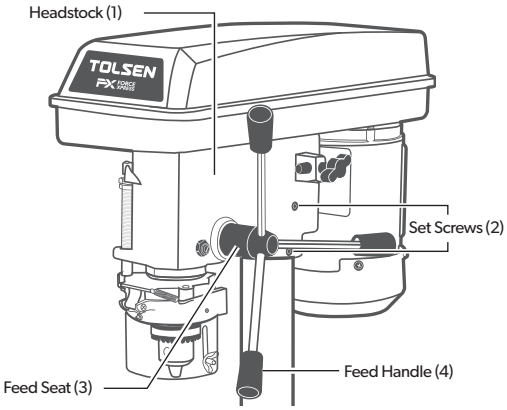


Figure C: Installing Headstock and Feed Handles

Mounting

1. Loosen the Pivot Lever and slide the Table up the Column to within 6" of the Spindle (73). Tighten the Pivot Lever.
2. Open the jaws of the Chuck (74) to their maximum, using the supplied Chuck Key.
3. Put a piece of scrap wood on the table to protect the Chuck nose.
4. Ensuring all parts are thoroughly clean, dry and burr free, place the Chuck with its open jaws on the scrap wood, directly under the Spindle.
5. Use the Feed Handles to gently lower the Spindle so it is just entering the opening in the top of the Chuck.
6. Examine the Chuck from all sides to be sure that it is properly aligned with the Spindle.
7. Using the Feed Handles, insert the Spindle all the way into the Chuck, pressing the Chuck nose hard against the piece of scrap wood on the Table to secure the Chuck into place.

OPERATING INSTRUCTIONS

⚠ WARNING

Read the ENTIRE IMPORTANT SAFETY INFORMATION section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

Tool Set Up

⚠ WARNING

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:
Turn the Power Switch of the tool off and unplug the tool from its electrical outlet before performing any procedure in this section.
TO PREVENT SERIOUS INJURY:
DO NOT OPERATE WITH ANY GUARD DISABLED, DAMAGED, OR REMOVED. Moving guards must move freely and close instantly.

Table Adjustment

1. Adjust the Table (1) by loosening the Pivot Lever (3), moving the Table, and tightening the Pivot Lever.
2. Tilt the Table by loosening the Angle Bolt (2) and tilting to the required angle. The angle can be read using the Angle Scale.
3. **TO ENSURE THAT THE DRILL IS ENTIRELY PERPENDICULAR TO THE TABLE,** insert a straight round bar (not included) in the Chuck, place a square on the Table and bring it up to the round bar. Adjust the angle as needed.

CAUTION! To prevent injury from unexpected Table movement, tighten Angle Bolt and Pivot Lever after adjustment.

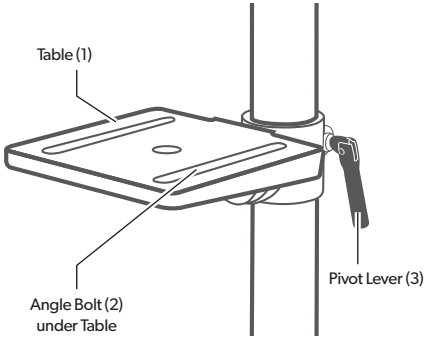


Figure D: Table Adjustment

Setting a Drilling Depth

Located on the left side of the Headstock (39) is the depth feed adjustment assembly, which allows drilling a series of holes to the same depth using one setting.

1. Lower the drill (with the power OFF) so that it contacts the material and hold in that position.
2. Screw down the Adjustment Nut (2) on the Stop Rod (4) until the gap between the underside of the Nut and the Drill Stop face equals the depth of the hole required. Refer to Figure E: Drill Depth Adjustment.
3. Screw down the Lock Nut (1) against the Adjustment Nut to lock setting.

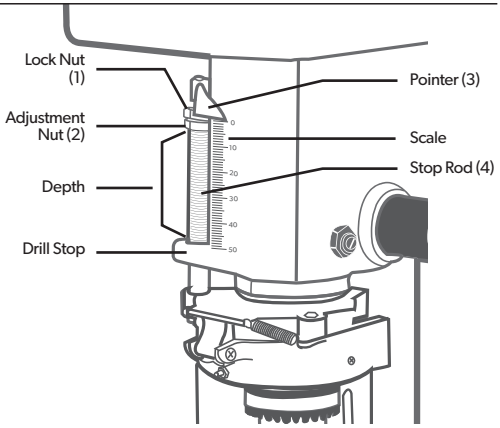


Figure E: Drill Depth Adjustment

Note: Alternatively, drilling depth for a one-time procedure can be determined by lowering the drill (with the power OFF) until it contacts the work, noting the position of the Pointer (3) on the Scale, turning the drill ON, and drilling to the required depth using the Scale as a guide.

Changing Drill Speed

Before changing drill speeds, make sure the machine is switched OFF and UNPLUGGED.

1. Open the Pulley Cover.
2. Loosen the Motor Tension Knob (1) on the Headstock, and move the Motor towards the Headstock to relieve tension on the V-Belt.
3. When the Belt has been correctly positioned, tighten it by pushing the Motor away from the Headstock until the Belt deflects by approximately 1/2" at its center when using reasonable thumb pressure. Lock this position in with the Motor Tension Knob.

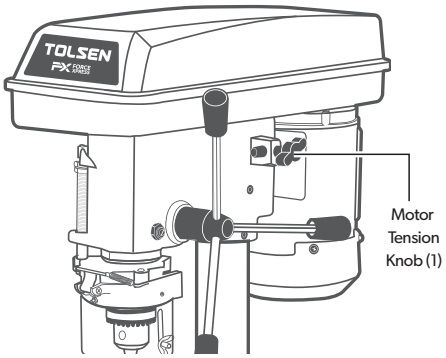


Figure F: Motor Tension Knob location

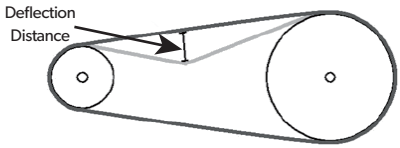


Figure G: Belt Deflection

Note: If the belt is too long to be properly tensioned, it must be replaced.

A full chart is also located on the inside of the pulley cover

Changing Drill Speed

1. Insert the drill bit into the jaws of the Chuck
2. Before tightening the Chuck, ensure that approximately 1", ensuring that the jaws the drill bit is centered within the jaws. do not touch the flutes of the drill bit.
3. Tighten the Chuck securely with the included Chuck Key.

Workpiece and Work Area Set Up

1. Designate a work area that is clean and well-lit. The work area must not allow access by children or pets to prevent distraction and injury.
2. Route the power cord along a safe route to reach the work area without creating a tripping hazard or exposing the power cord to possible damage. The power cord must reach the work area with enough extra length to allow free movement while working.
3. Secure loose workpieces using a vise or clamps (not included) to prevent movement while working.
4. There must not be objects, such as utility lines, nearby that will present a hazard while working.
5. Make sure the table height and position is set so that the drill travel range is sufficient for the material to be drilled.
6. Make sure the work is securely clamped. That is, held in a drill vise, or bolted to the table. Never hold the material with your bare hands while drilling. Severe personal injury may be caused if the material is flung out of the operator's hand.
7. **IF THE MATERIAL IS IRREGULARLY SHAPED** and cannot be laid flat on the table, it should be securely blocked and clamped. Any tilting, twisting or shifting will result not only in a roughly drilled hole but also increases the chances of damage to the drill.
8. **FOR FLAT WORK**, lay the piece on to a wooden base and clamp it down firmly against the table to prevent it from turning.
9. **FOR SMALL MATERIALS** that cannot be clamped to the table, use a drill press vise. Make sure the vise is clamped or bolted to the table.
10. **WHEN DRILLING COMPLETELY THROUGH WOOD**, position a piece of scrap wood between the material and the table to prevent splintering on the underside of the material as the drill breaks through. The scrap piece of wood must make contact with the left side of the column. Securely clamp the other end of the scrap wood to the table. Also, set the depth of the drill so that the drill will not come in contact with the table - or align the table so that the hole in its center is in line with the drill bit.

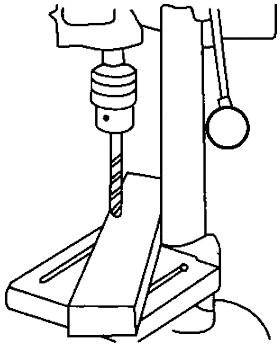


Figure I: Bracing workpiece against column

General Operating Instructions

1. Bring the drill bit down with the Feed Handle to where the hole is to be drilled. Make minor workpiece alignment adjustments.
2. Plug the Power Cord into an electrical outlet.
3. Turn the Drill Press on.
4. Pull down on the Feed Handles and slowly drill the hole into the workpiece.

⚠ WARNING

If the drill bit grabs and spins the workpiece, do not attempt to stop the spinning with your hands. Step back, and turn the drill press off. Wait for the spindle to stop turning before dislodging the workpiece.

5. To prevent accidents, turn off the tool and disconnect its power supply after use. Clean, then store the tool indoors out of children's reach.

MAINTENANCE

Procedures not specifically explained in this manual must be performed only by a qualified technician.

⚠ WARNING

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:

Turn the Power Switch of the tool off and unplug the tool from its electrical outlet before performing any procedure in this section.

TO PREVENT SERIOUS INJURY FROM TOOL FAILURE:

Do not use damaged equipment. If abnormal noise or vibration occurs, have the problem corrected before further use.

Cleaning, Maintenance, and Lubrication

1. **BEFORE EACH USE**, inspect the general condition of the tool. Check for:
   - loose hardware
   - misalignment or binding of moving parts
   - cracked or broken part
   - damaged electrical wiring
   - any other condition that may affect its safe operation.
2. **AFTER USE**, wipe external surfaces of the tool with clean cloth
3. **⚠ WARNING**

   If the supply cord of this power tool is damaged, it must be replaced only by a qualified service technician.

Belt Inspection and Tensioning

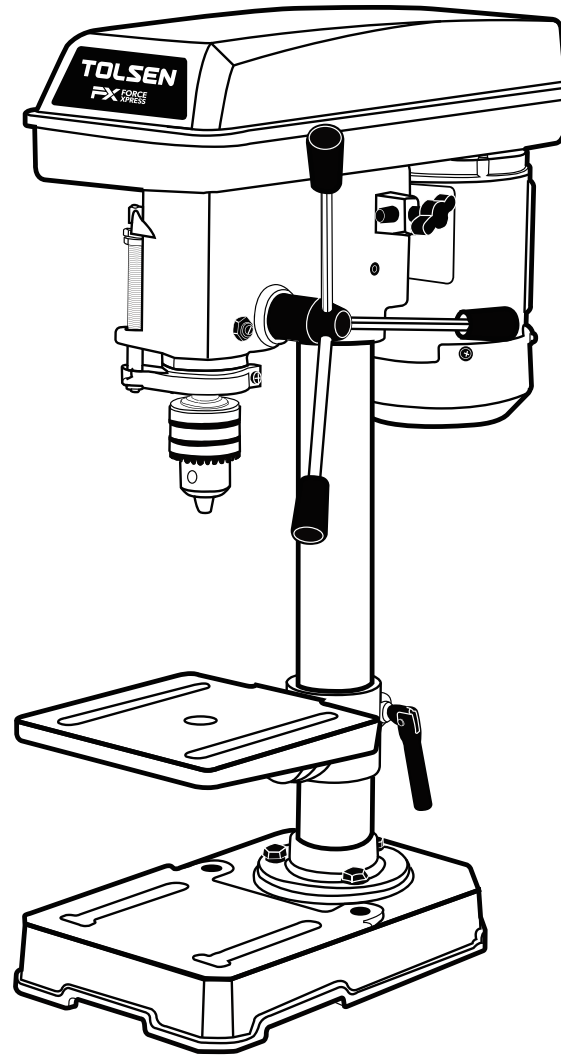
1. Examine V-Belt for cracks, tears in the backing, and other damage.
2. Replace V-Belt if damaged, following the instructions under Changing Drill Speed on page 9.

Troubleshooting

Problem	Possible Causes	Likely Solutions
Tool will not start.	1. Cord not connected. 2. No power at outlet. 3. Tool's thermal reset breaker tripped (if equipped). 4. Internal damage or wear. (Carbon brushes or switch, for example.)	1. Check that cord is plugged in. 2. Check power at outlet. If outlet is unpowered, turn off tool and check circuit breaker. If breaker is tripped, make sure circuit is right capacity for tool and circuit has no other loads. 3. Turn off tool and allow to cool. Press reset button on tool. 4. Have technician service tool.
Tool operates slowly.	Extension cord too long or wire size too small.	Eliminate use of extension cord. If an extension cord is needed, use one with the proper diameter for its length and load.
Performance decreases over time.	1. Accessory dull or damaged. 2. Carbon brushes worn or damaged.	1. Keep cutting accessories sharp. Replace as needed. 2. Have qualified technician replace brushes.
Excessive noise or rattling.	1. Internal damage or wear. (Carbon brushes or bearings, for example.) 2. Belt too loose (slipping) or too tight (bearing damage).	1. Have technician service tool. 2. Properly tension belt.
Overheating.	1. Forcing machine to work too fast. 2. Accessory dull or damaged. 3. Blocked motor housing vents. 4. Motor being strained by long or small diameter extension cord.	1. Allow machine to work at its own rate. 2. Keep cutting accessories sharp. Replace as needed. 3. Wear ANSI-approved safety goggles and NIOSH-approved dust mask/respirator while blowing dust out of motor using compressed air. 4. Eliminate use of extension cord. If an extension cord is needed, use one with the proper diameter for its length and load.

WARNING:

Follow all safety precautions whenever diagnosing or servicing the tool. Disconnect power supply before service.



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