

IMPORTANT SAFETY INFORMATION

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

1. Keep work area clean and well lit. Cluttered or dark areas invite accidents.
2. 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.
3. Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.
4. Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with grounded power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
5. Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is grounded.
6. Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
7. 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.
8. 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.
9. If operating a power tool in a damp location is unavoidable, use a Ground Fault Circuit Interrupter (GFCI) protected supply. Use of a GFCI reduces the risk of electric shock.
10. Grounded tools require a three wire extension cord. Double Insulated tools can use either a two or three wire extension cord.
11. 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.
12. Use safety equipment. Always wear eye protection. Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
13. 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.
14. Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
 15. Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
 16. 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.
 17. If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of these devices can reduce dust-related hazards.
 18. 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.
 19. 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.
 20. 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.
 21. 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.
 22. Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
 23. 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.
 24. Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
 25. 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
 26. SERVICE AND REPAIRS should be made by qualified repair technicians at an authorized repair center. Improperly repaired tools could cause serious shock or injury.





Hammer Drill Safety Warnings

1. Wear ear protectors with hammer drill. Exposure to noise can cause hearing loss.
2. Use auxiliary handles supplied with the tool. Loss of control can cause personal injury.
3. Hold power tools by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord. Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.
4. Let bit cool before touching, changing or adjusting it. Bits heat up dramatically while in use, and can burn you.
5. If the drill bit jams, release the trigger immediately; drill torque can cause injury or break bit.
6. Maintain labels and nameplates on the tool. These carry important safety information. If unreadable or missing, contact TOLSEN Tools for a replacement.
7. Avoid unintentional starting. Prepare to begin work before turning on the tool.
8. Do not lay the tool down until it has come to a complete stop. Moving parts can grab the surface and pull the tool out of your control.
9. When using a handheld power tool, maintain a firm grip on the tool with both hands to resist starting torque.
10. Do not leave the tool unattended when it is plugged into an electrical outlet. Turn off the tool, and unplug it from its electrical outlet before leaving.
11. This product is not a toy. Keep it out of reach of children.
10. 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.

SPECIFICATIONS

Electrical Rating	120V~60Hz
Rated current (Input Power)	6A (720W)
Rotational Speed	0-3000 RPM
Impact Rate	0-48,000 BPM
Chuck Capacity	1/2"
Wood Capacity	1"
Concrete Capacity	1/2"
Steel Capacity	1/2"

Note: Symbology

	Double Insulated
	WARNING mark concerning Risk of Eye Injury. Wear ANSI-approved safety goggles with side shields
	Read the manual before set-up and/or use.
	Faulty and/or discarded electrical or electronic have to be collected all the appropriate recycling locations.

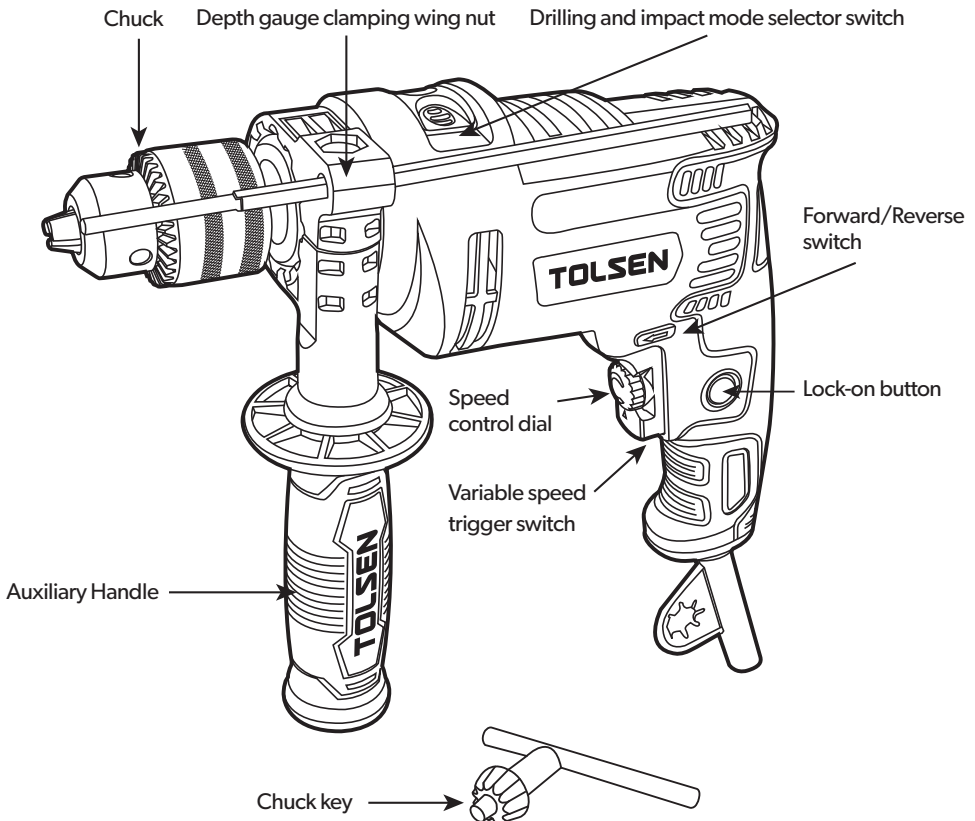
SETUP

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: Release the Trigger, make sure the Trigger lock is not engaged and unplug the tool from its electrical outlet before adjusting the tool or installing accessories.



Installing Auxiliary Handle

1. Loosen the wing nut that joins the side handle to the drill.
2. Rotate the handle to a position that will allow you to hold the tool firmly and comfortably.
3. Re-tighten the wing nut.

Installing Depth Gauge Rod

1. Loosen the wing nut that joins the side handle to the depth stop rod.
2. Slide the rod to the position as indicated on its scale that will stop the drills forward motion when the desired drilling depth is reached.
3. Re-tighten the wing nut.

GENERAL OPERATING INSTRUCTIONS

This tool is designed for drilling into almost any material. For drilling into wood, metal, and plastics, use it in the regular (non-hammer) setting. For drilling holes in stone or concrete, use special masonry drill bits and the hammer setting.

Operating the chuck

1. Plug the tool into a power source.
2. Hold the tool firmly. The farther you depress the trigger the faster the speed. The maximum speed is adjustable by rotating the speed adjustment wheel on the trigger.
3. To maintain a certain speed after you have set your speed dial (located on the trigger) engage the lock-on button on the left side of the handle when squeezing the trigger switch.
4. To disengage the lock-on button, squeeze the trigger again.

Running the hammer drill

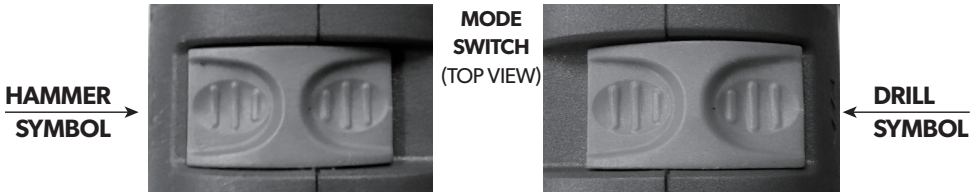
1. Loosen the wing nut that joins the side handle to the depth stop rod.
2. Slide the rod to the position as indicated on its scale that will stop the drills forward motion when the desired drilling depth is reached.
3. Re-tighten the wing nut.

Forward-Reverse

To change the chuck rotation direction, move the lever above the trigger to the other side.

1. Setting the direction switch to the right causes the drill to turn clockwise, for normal drilling.
2. The direction switch moved to the left will cause the drill to run in reverse (counterclockwise) direction, backing drill bits and screws out of their holes.

Hammer Drill Setting



To change the drill from regular drilling to the hammer drilling, wait until the drill has stopped turning, and slide the drilling and impact mode selector switch to the right, exposing the hammer pictograph. This will cause the drill to use percussion as well as turning action. This percussion causes the tip of the drill bit to break up the material it contacts, while the turning action removes the debris created from the contact point at the drill tip. The percussion varies from 0 to 44,800 beats per minute. Be aware that the force of the impact tends to diminish as the number of beats per minute increases.

WARNING:

Do not move the drilling and impact mode selector switch while the drill is turning.

Turn off your drill at once, unplug and inspect it for serious problems if:

1. Moving parts get stuck
2. Speed drops to an abnormally low level
3. The motor housing gets hot
4. Sparks or odors emit from the casing

Metal Drilling Tips

1. Use high speed steel, carbide or specialty bits for metal drilling.
2. Secure work piece to keep it from moving during the drilling operation.
3. Use a punch (not included) to create a dimple for the bit to start.
4. Start by drilling slowly to keep bit from wandering away from your starting point.
5. As hole is established, increase speed. Do not use so much pressure that bit heats up. This can damage bit and create irregular hole. For hard metal, use cutting oil to keep bit cool.
6. When drilling large holes in metal, start by drilling a smaller pilot hole, then using a larger bit for the final size hole.

Wood Drilling Tips

1. Use high speed bits or bits specially designed for wood drilling, such as brad point, spade bits, forstner bits, etc.
2. Secure work piece to keep it from moving during the drilling operation.
3. Start by drilling slowly to keep bit from wandering away from starting point. Increase speed as hole is established.
4. To prevent or reduce "break out" when bit penetrates work piece, clamp a piece of scrap material to back of work piece.
5. Do not lock Trigger in the ON position, as the bit can easily jam in wood and motor must be stopped quickly.

Concrete Drilling Tips

1. Use carbide or specialty bits for concrete drilling.
2. Rock and masonry are generally drilled in the hammer (impact) drilling mode.
3. When drilling in walls, start with regular drilling and, once tile is pierced, continue with hammer mode.

NOTE: In deep bore holes, occasionally pull the drill bit out to remove dust and chips.

MAINTENANCE AND SERVICING

WARNING:

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION: Turn off the switch and unplug the tool from its electrical outlet before performing any inspection, maintenance, or cleaning procedures.

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 parts,
 - damaged electrical wiring,
 - any other condition that may affect its safe operation.

WARNING:

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

2. AFTER USE, wipe external surfaces of the tool with clean cloth.
3. TO CLEAN: The ventilation openings should be kept clean and free of dirt and debris. Wear ANSI-approved safety goggles and NIOSH-approved dust mask/respirator before cleaning

ducts. The most effective way to clean the ventilation openings is with compressed air.

4. CARBON BRUSH MAINTENANCE. The carbon brushes may require maintenance when the motor performance of the tool decreases or stops working completely.

CAUTION:

The carbon brushes must be replaced by a pair similar carbon brush available through the after-sales service organization or qualified professional person.

The brushes must always be replaced in pairs.

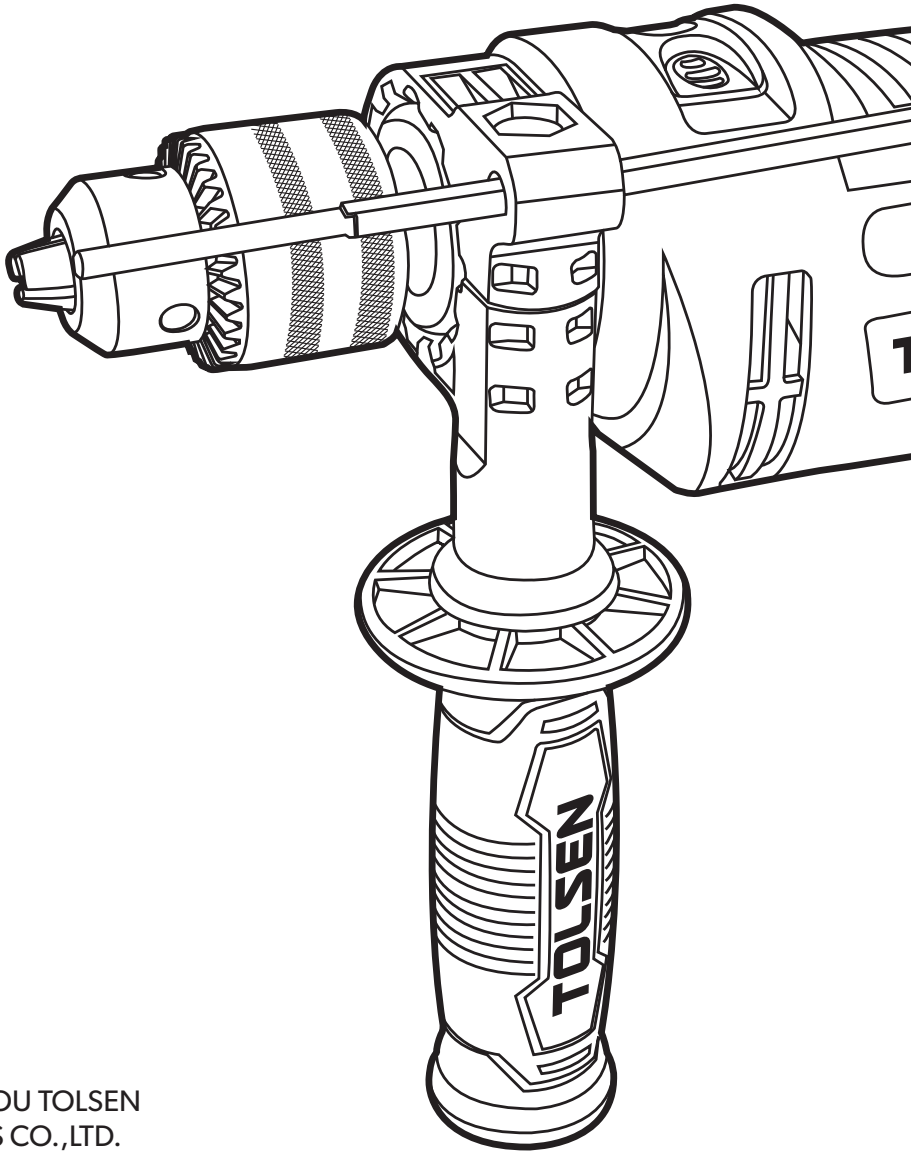
5. If you discover any damage, consult the exploded drawing and parts list to determine exactly which replacement part you need to order from our customer service department.

Troubleshooting

Problem	Possible Causes	Likely Solutions
Tool will not start.	<ol style="list-style-type: none"> 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.) 	<ol style="list-style-type: none"> 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.	<ol style="list-style-type: none"> 1. Excess pressure applied to workpiece. 2. Power being reduced by long or small diameter extension cord. 	<ol style="list-style-type: none"> 1. Decrease pressure, allow tool to do the work. 2. Eliminate use of extension cord. If an extension cord is needed, use one with the proper diameter for its length and load. See General Power Tool Safety Warnings section.
Performance decreases over time.	<ol style="list-style-type: none"> 1. Accessory dull or damaged. 2. Carbon brushes worn or damaged. 	<ol style="list-style-type: none"> 1. Keep cutting accessories sharp. Replace as needed. 2. Have qualified technician replace brushes.
Excessive noise or rattling.	Internal damage or wear. (Carbon brushes or bearings, for example.)	Have technician service tool.
Overheating.	<ol style="list-style-type: none"> 1. Forcing tool to work too fast. 2. Accessory misaligned. 3. Accessory dull or damaged. 4. Blocked motor housing vents. 5. Motor being strained by long or small diameter extension cord. 	<ol style="list-style-type: none"> 1. Allow tool to work at its own rate. 2. Check and correct accessory to fence and/or table alignment. 3. Keep cutting accessories sharp. Replace as needed. 4. Wear ANSI-approved safety goggles and NIOSH-approved dust mask/respirator while blowing dust out of motor using compressed air. 5. Eliminate use of extension cord. If an extension cord is needed, use one with the proper diameter for its length and load. See General Power Tool Safety Warnings section.

WARNING:

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



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