

Instruction Manual

MAKO[™] Tools

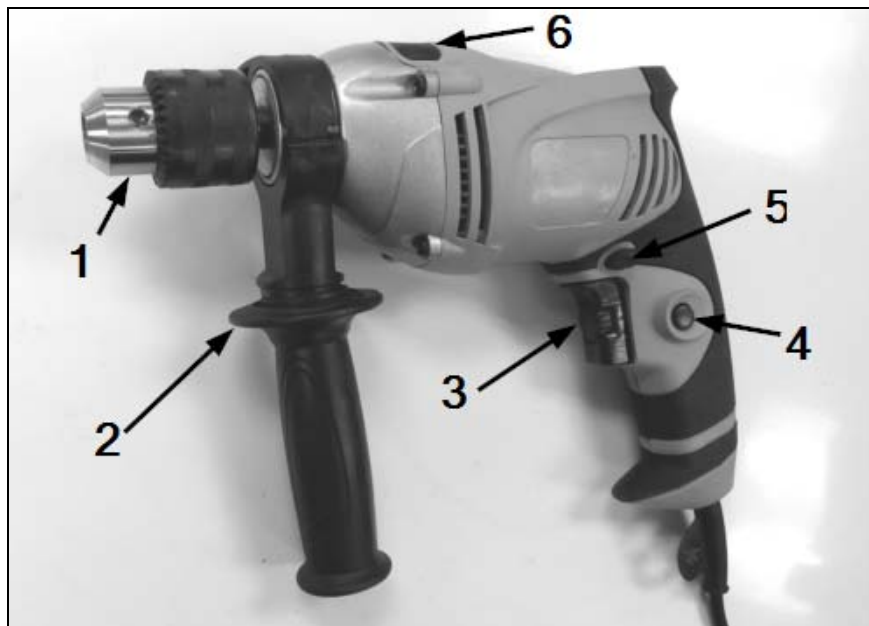
13MM HAMMER DRILL

Model SROM 1173



Our tool range has you covered for DIY. Whatever the job, make light work of it with MAKO tools.

PRODUCT FEATURES:



1. Geared 13mm Chuck
2. Adjustable Side Handle with Depth Gauge (*not shown*)
3. ON/OFF Switch/Trigger with Variable Speed Set Dial
4. Lock On Button
5. Forward/Reverse Selector
6. Drill/Impact Selector

Dear Valued Customer,

Thank you for purchasing this Mako Power Tool.

We are dedicated to providing quality Mako Power Tools at competitive prices. Whether you are serious about DIY or just a casual user, our range of power tools are perfect for any job.

Mako 2 Year DIY Warranty:

All Mako Power Tools are backed by a comprehensive 2 year DIY warranty. If for any reason you experience a fault with this power tool, please contact the retailer that it was purchased from, present the receipt and warranty card (at the back of the operating manual), for a full refund or replacement. The warranty is void if damage is not attributable to normal wear and tear, if the tool is used commercially, the motor is overloaded or is tampered with, is damaged by accident or if it is bought second hand. Continued use after partial failure, or the use with the incorrect accessories will void the warranty.

This warranty excludes all Mako accessories, which are covered by their own appropriate warranties.

MAKO TOOLS ARE FOR DIY USE ONLY. THEY ARE NOT DESIGNED OR APPROVED FOR INDUSTRIAL OR COMMERCIAL USE.









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Description of symbols:



Please read all of the safety and operating instructions carefully before using this drill. Please pay particular attention to all sections of this User Guide that carry warning symbols and notices.

	Observe caution and safety notes!
	Caution- electric shock! Danger to life!
n_0	No-load speed.
V~	AC Voltage
	Wear hearing protection, dust protection mask, protective glasses and protective gloves.
	Keep children away from electrical power tools!
	Only for use in dry, indoor spaces.
	Check that the device, mains lead and plug are in good condition!
	Safety class II
	Dispose of packaging and appliance in an environmentally friendly way!

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 grounded.
- 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.
- e) **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.
- f) **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD 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 energising power tools that have the switch on invites accidents.
- d) **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.
- e) **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 jewellery. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
- 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.

- b) **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.*
- d) **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.*
- 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.*
- f) **Keep cutting tools sharp and clean.** *Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.*
- g) **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.*

SPECIFIC WARNINGS FOR POWER DRILLS

Wear ear protectors when impact drilling. *Exposure to noise can cause hearing loss.*

Use auxiliary handle(s), if supplied with the tool. *Loss of control can cause personal injury.*

Hold power tool by insulated gripping surfaces, when performing an operation where the cutting accessory may contact hidden wiring or its own cord. *Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.*

MAKO IMPACT DRILL USE INSTRUCTIONS:

It is recommended that this tool is always supplied via a Residual Current Device with a rated residual current of 30 mA or less.

Drill Chuck:

1. Disconnect the plug from the mains power outlet.
2. To open the drill chuck, turn the rear knurled section of the chuck in a clockwise direction.
3. Insert the drill bit fully into the chuck. To tighten, turn the rear knurled section of the chuck in an anti-clockwise direction ensuring the jaws of the chuck grip firmly and evenly on the drill bit. Use the chuck key to fully tighten. **DO NOT** use any extra lever, or similar, on the chuck key handle to increase closing pressure – this will cause damage to the chuck and key.

Switching On/Off:

1. Start the tool by squeezing the Trigger.
2. The pressure that is applied to the Trigger will determine the speed. The more pressure that is applied, the faster the speed.
3. Your operating speed can be predetermined by using the Variable Speed Set Dial. See the information below for further details.
4. Pressing the Lock Button while the Trigger is engaged will allow the impact drill to continue operating without constant pressure. To turn off the Impact Drill squeeze the trigger.
5. For forward rotation, slide the Forward/Reverse Selector to the right.
For reverse rotation, slide the Forward/Reverse Selector to the left.

Setting The Variable Speed:

The Variable Speed Set Dial allows you to adjust the speed of the drill.

To change the variable speed, proceed as follows:

1. Turn the variable speed selector clockwise to increase the speed.


2. Turn the variable speed selector anticlockwise to decrease the speed

Starting the Drill:


Ensure the drill bit has been installed correctly.

The drill bit must be placed firmly on the material you are working with before the drill is switched on otherwise it may cause damage. Creating a center mark with a center punch will be of assistance in correctly locating the drill.

Drilling into wood, metal and plastic

For drilling into wood, metal and plastic ensure the selection dial is set to the regular drilling position: ().

Masonry Drilling

For drilling into stone, bricks, marble and concrete, ensure that the Drill/Impact Selector is set to the masonry drilling position: ().

Ensure that a proper tungsten carbide masonry drill bit is being used.

Screw Driving

1. Before driving in wood screws, a suitable hole should be made in the material you are working with. This will prevent the screw and bit from 'wandering', causing damage.
2. It is recommended that when screw driving, the Impact Drill is be operated at low speed.
3. Insert the drill bit into the screw head and gently drive the screw into the hole.

Note: For continuous screw driving, it is recommended that Mako Cordless screw drivers or cordless drills are used.

Drilling Metals and Plastics

1. When drilling metals it is advisable to use a center punch to mark the point you wish to drill.
2. When drilling metals it is important to use a cooling agent as the heat generated may make the drill hard to control. Before drilling, pour a small amount of drilling oil or a paraffin/turpentine mixture on the area of the metal being drilled and then proceed.
3. When drilling plastics, use water for a cooling agent to avoid discolouration.

Sanding and Polishing

1. Power drills can be used to a **limited extent only** for sanding and polishing.
2. A rubber pad should be inserted firmly into the chuck ensuring the claws of the chuck grip firmly and evenly.
3. Operate the drill at full speed (3000/min)

Auxiliary Handle & Depth Gauge

1. To fit the auxiliary handle, loosen the handle off, slide the handle opening over the chuck and rest it firmly on the collar of the drill.
2. Slide the depth gauge through the small hole in the handle assembly, to the required position.
3. Tighten the handle to secure firmly.

Use the handle only to stop rotation of the Impact Drill – do not use to increase drilling pressure.

Other Drilling Hints

1. For best results and safe use of this tool it is recommended that the material you are working on should be clamped securely to a work bench.
2. Only use sharp drill bits. Blunt bits will cause unnecessary load on the drill and could cause motor burnout.
3. Always commence drilling at low speed.
4. Always ensure you are using the correct drill bit for the application i.e. a masonry drill bit is required for stone, bricks, rock etc.
5. For high precision drilling it is best to use a drill bit with a centring pin and pre-drilling edges.
6. To prevent splintering on the underside of the material, place an additional piece of wood under the material being drilled and then proceed to drill the hole through both pieces.
7. The hammer action is only required for drilling into concrete, stone, marble and solid bricks. Do not use when drilling tiles or hollow bricks.

8. It is recommended that a Rotary Hammer Drill be used when continuously drilling a large number of holes in concrete, stone, marble and solid bricks. A Rotary Hammer Drill is more efficient in these circumstances.

Carbon Brushes

The carbon bushes are an integral component in the efficient running of the motor. These are consumable spare parts and must be replaced when they are worn to 4mm length.

NOTE: Worn carbon brushes should only be installed by an authorised power tool technician.

NOTE: After replacing the carbon brushes there may be increased sparking. This is normal and should pass after a short period of time.

NOTE: After new carbon brushes have been installed, run the Impact Drill off load for several minutes, in forward and reverse directions, to allow the new brushes to bed in before use.

Overload

The motor of this tool may be damaged if overloaded. Manual pressure on this tool will not result in faster operation. Forcing the tool will only result in reduced efficiency and could cause motor burnout. Sub-standard work and shorter tool life will result from excessive force.

Avoiding Motor Damage

If you are running the tool continuously at low speed, it is important to occasionally take the tool off load. Running the tool off load at full speed for approximately one minute creates a cooling air flow for the motor.

MAINTENANCE AND CLEANING:

Before any work commences on the Impact Drill, ensure that it is unplugged from the power outlet.

For optimum use, regularly check to see if any dust or foreign matter has entered the ventilations slots near the motor and around the ON/OFF switch. Use a soft brush if required. Wear safety glasses to protect your eyes whilst cleaning.

If the body of the tool needs cleaning, wipe it with a soft damp cloth. A mild detergent can be used but not alcohol, petrol or other cleaning agents. Never use caustic agents to clean plastic parts.

Lubricate all moving parts at regular intervals.

If the supply cord is damaged it must be replaced only with the correct part by an authorised service agent to avoid a safety hazard.



CAUTION: Water must never come into contact with the tool.

DISPOSAL:



Do not dispose of electrical appliances with your domestic waste! The packaging comprises exclusively environmentally- friendly material. Dispose of it in your local recycling containers.

TECHNICAL DATA

½" IMPACT DRILL	SROM1173
Rated Voltage	230-240V, 50Hz
Input Power	710W
Unloaded Speed n_0	0-3200min ⁻¹
Chuck Capacity	13mm Ø
Drilling Capacity - wood	20mm
Drilling Capacity - masonry	13mm
Drilling Capacity - steel	13mm