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# **IMPORTANT:**

Please read this manual carefully before using this product, and save it for reference.

INSTRUCTION MANUAL



# MAXIMUM°

# **TABLE OF CONTENTS**

TECHNICAL DATA	4
GENERAL POWER TOOL SAFETY WARNINGS	5
SYMBOLS	8
PARTS LIST	9
ACCESSORIES	10
KNOW YOUR DRILL	11
OPERATING INSTRUCTIONS	12
WORKING HINTS FOR YOUR DRILL	15
MAINTAIN TOOLS WITH CARE	15
TROUBLESHOOTING	16
WARRANTY	17

**NOTE:** If any parts are missing or damaged, or if you have any questions, please call our toll-free helpline at 1-888-670-6682.



# **SAVE THESE INSTRUCTIONS**

This manual contains important safety and operating instructions. Read all instructions and follow them with use of this product.

# **TECHNICAL DATA**

Type PDN120CU (PDN-designation of machinery, representative of Electric Drill)

VOLTAGE		120 V~60 Hz
RATED CURRENT		10 A
NO-LOAD SPEED		0 - 700 RPM
CHUCK CAPACITY MAX.		5/8" (16 mm)
DRILLING CAPACITY		
	WOOD	3/2" (3.8 cm)
	STEEL	5/8" (16 mm)
PROTECTION CLASS		<b>□/II</b>
WEIGHT		7 lb 10 oz (3.46 kg)

# **WARNING!**

Some dust created by power sanding, sawing, grinding, drilling and other construction activities contains chemicals known 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.



#### **WARNING!**

This product can expose you to chemicals including lead, phthalate or bisphenol A which are known to cause cancer, birth defects or other reproductive harm. Wash your hands after use.



## **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 electric (corded) power tool or battery-operated (cordless) power tool.

#### **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.
- Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

#### **ELECTRICAL SAFETY**

- a) Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adaptor plugs with grounded power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
- 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.
- 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.

#### **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.
- 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.
- h) Do not let familiarity gained from frequent use of tools allow you to become

complacent and ignore tool safety principles. A careless action can cause severe injury within a fraction of a second.

## **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, tool bits, etc., in accordance with these instructions and in the manner intended for the particular type of power tool, 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.
- h) Keep handles and grasping surfaces dry, clean and free from oil and grease. Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

## **SERVICE**

 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.

## **DRILL SAFETY WARNINGS**

# 1) SAFETY INSTRUCTIONS FOR ALL OPERATIONS

- a) Use auxiliary handles supplied with the tool. Loss of control can cause personal injury.
- b) 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.

# 2) SAFETY INSTRUCTIONS WHEN USING LONG DRILL BITS

- a) Never operate at higher speed than the maximum speed rating of the drill bit. At higher speeds, the bit is likely to bend if allowed to rotate freely without contacting the workpiece, resulting in personal injury.
- b) Always start drilling at low speed and with the bit tip in contact with the

- workpiece. At higher speeds, the bit is likely to bend if allowed to rotate freely without contacting the workpiece, resulting in personal injury.
- Apply pressure only in direct line with the bit and do not apply excessive pressure.
   Bits can bend causing breakage or loss of control, resulting in personal injury.

#### **MIXER SAFETY INSTRUCTIONS**

- a) Hold the tool with both hands at the intended handles. Loss of control can cause personal injury.
- b) Ensure sufficient ventilation when mixing flammable materials to avoid a hazardous atmosphere. Developing vapour may be inhaled or be ignited by the sparks the power tool produces.
- Do not mix food. Power tools and their accessories are not designed for processing food.
- d) Keep the cord away from the working area. The cord may be entangled by the mixer basket.
- Ensure that the mixing container is placed in a firm and secure position. A
  container that is not properly secured may move unexpectedly.
- f) Ensure that no liquid splashes against the housing of the power tool. Liquid that has penetrated the power tool can cause damage and lead to electric shock.
- g) Follow the instructions and warnings for the material to be mixed. Material to be mixed may be harmful.
- h) If the power tool falls into the material to be mixed, unplug the tool immediately and have the power tool checked by a qualified repair person. Reaching into the bucket with the tool still plugged in can lead to electric shock.
- Do not reach into the mixing container with your hands or insert any other objects into it while mixing. Contact with the mixer basket may lead to serious personal injury.
- j) Start up and run down the tool in the mixing container only. The mixer basket may bend or spin in an uncontrolled manner.

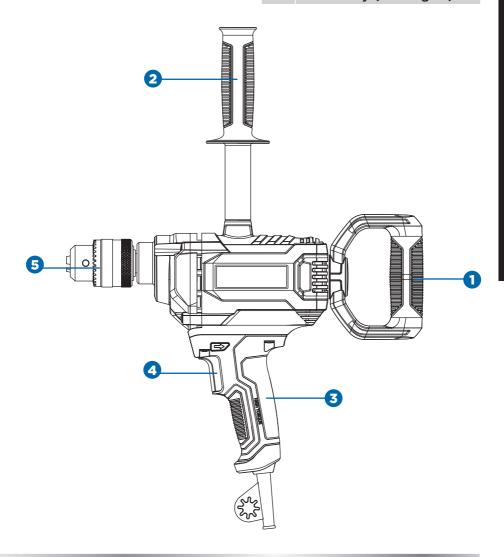
# **SYMBOLS**

	To reduce the risk of injury, user must read instruction manual
	Double insulation
<u>^</u>	Warning
	Wear ear protection
	Wear eye protection
	Wear dust mask

# **MAXIMUM**°

No.	Description
1.	Rear handle
2.	Auxiliary handle
3.	Main handle

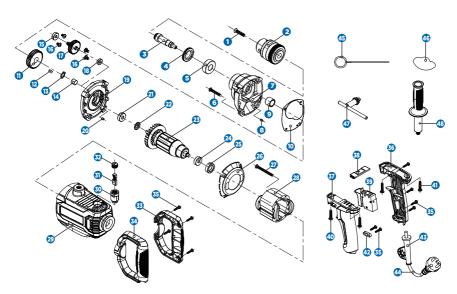
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No.	Description
4.	On/off switch
5.	Chuck
6	Chuck key (See Fig. A)



# **ACCESSORIES**

Auxiliary handle	1
Chuck key	1

# **MAXIMUM**°



No.	Description
1	Thread screw
2	Drill chuck
3	Drill output shaft
4	Bearing gland
5	Bearing
6	Self tapping screw
7	Reducer
8	Positioning pin
9	Gear limit set
10	Plate
11	Big gear
12	Flat key
13	Shaft with elastic spring
14	Needle bearing
15	Bearing
16	Bearing screw
17	Intermediate gear components
18	Bearing
19	Middle cover
20	Shockproof pin
21	Bearing
22	Bearing seal plate
23	Rotor

Bearing

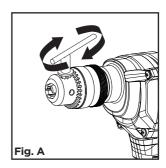
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No.	Description
25	Bearing sleeve
26	Wind circle
27	Self tapping screw
28	Stator
29	Chassis
30	Brush
31	Carbon brush
32	Brush cover
33	Type d right handle
34	Type d left handle
35	Self tapping screw
36	Right handle
37	Left handle
38	Switch push rod
39	Switch
40	Self tapping screw
41	Self tapping screw
42	Cable clamp
43	Electric cable sheath
44	Cable
45	Lead
46	Grease
47	Drill chuck key
48	Auxiliary handle

## **INTENDED USE:**

The tool serves a double purpose:

- 1. Mixing liquid, powdered or granulated materials; and
- Driving in and loosening fasteners as well as for drilling in wood, metal and plastic.

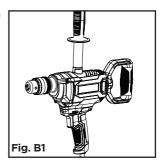


# **ASSEMBLY**

# 1. MOUNTING BIT IN CHUCK (See Fig. A)

For small bits, open jaws enough to insert the bit up to the flutes. For large bits, insert the bit as far as it will go. Centre the bit as you close the jaws by hand. Put it in proper position to give maximum contact between the chuck jaws and the bit shank.

Insert chuck key into every key hole on chuck and tighten clockwise firmly. The chuck can be released by using one hole only.

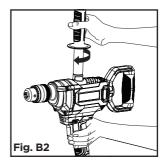


# 2. AUXILIARY HANDLE AND REAR HANDLE (See Fig. B1-C)

The tool must be supported with one of the auxiliary handles.

Attach securely the top auxiliary handle by screwing it into the thread on top of the motor housing.

The rear handle can be rotated 360° around the axis of the tool.





**NOTE:** Before using the tool, read the instruction book carefully.



## **WARNING!**

Remove the plug from the socket before carrying out any adjustment, servicing or maintenance.

## **OPERATION**

# 1. ON/OFF SWITCH (See Fig. D)

Depress the switch (4) to start and release to stop your tool.

It is also a variable speed switch that delivers higher speed and torque with increased pressure. Speed is controlled by the amount of switch depression.

# 2. OPERATION OF MIXING

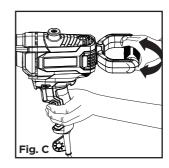
Selection of the stirrer paddle is dependent on the material that is to be stirred. Mount the auxiliary handle before starting to mix.

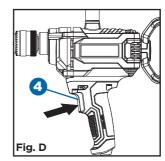
For materials with low viscosity, e.g., emulsion paint, varnishes, adhesive, grouting compound, cement slurry, use a stirrer paddle with a left-hand spiral. The material is moved from the top downwards when using a stirrer paddle with a left-hand spiral. The stirrer paddle is pushed upwards.

Materials with low viscosity are mixed in a way which minimizes splattering. For materials with high viscosity, e.g., plaster, concrete, cement, screed, filler, epoxy resin, use a stirrer paddle with right-hand spiral. The material is moved from the bottom upwards in a stirrer paddle with a right-hand spiral. The stirrer paddle works its way into the mixture.

Materials with high viscosity are mixed thoroughly.

While mixing, move the power tool in an up and down motion. Clean the stirrer paddle after use.







## **WARNING!**

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.

# **WARNING!**



- Do not run the power tool on a stand.
- Avoid splashing around the material being stirred to prevent slipping and losing control over the power tool.
- Avoid prolonged use of the power tool at lower speeds; otherwise, the motor of the power tool could overheat.

# 3. OPERATION OF DRILLING

Hold the tool firmly and exert light, steady pressure. Too much pressure at low speed will stall the tool. Too little pressure will keep the bit from cutting and cause excess friction by sliding over the surface. This can be damaging to both tool and bit.

# a) DRILLING IN WOOD

Be certain workpiece is clamped or anchored firmly. Always apply pressure in a straight line with the drill bit. Maintain enough pressure to keep the drill "biting".

When drilling holes in wood, twist bits can be used. Twist bits may overheat unless pulled out frequently to clear chips from flutes. Use a "back-up" block of wood for work that is likely to splinter, such as thin materials.

You will drill a cleaner hole if you ease up on the pressure just before the bit breaks through the wood; then, complete the hole from the back side.

# b) DRILLING IN METAL

There are two rules for drilling hard materials:

- 1. The harder the material, the greater the pressure you need to apply to the tool.
- 2. The harder the material, the slower the speed.

Here are a couple of tips for drilling in metal. Lubricate the tip of the bit occasionally with cutting oil except when drilling soft metals such as aluminum, copper or cast iron. If the hole to be drilled is fairly large, drill a smaller hole first, then enlarge to the required size — it's often faster in the long run. Maintain enough pressure to assure that the bit does not just spin in the hole. This will dull the bit and greatly shorten its life.



**NOTE:** Start the tool at a slow speed and increase the speed as the bit "bites" into the work by depressing the on/off switch.



**NOTE:** Always inspect drill bits for excessive wear. Use only bits that are sharp and in good condition.



**NOTE:** Bits are available with straight and reduced shanks for wood and light duty metal drilling. High speed bits cut faster and last longer on hard materials.

# **MAXIMUM®**

# **WORKING HINTS FOR YOUR TOOL**

If your power tool becomes too hot, set the speed to maximum and run no load for 2-3 minutes to cool the motor.

When drilling in metal, only use HSS drill bits in good condition. It is recommended to use a pilot hole before drilling a large diameter hole in metal.

# **MAINTAIN TOOLS WITH CARE**

Remove the plug from the socket before carrying out any adjustment, servicing or maintenance.

Your power tool requires no additional lubrication or maintenance. There are no user serviceable parts in your power tool. Never use water or chemical cleaners to clean your power tool. Wipe clean with a dry cloth. Always store your power tool in a dry place. Keep the motor ventilation slots clean. Keep all working controls free of dust.

Occasionally you may see sparks through the ventilation slots. This is normal and will not damage your power tool.

If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

# **TROUBLESHOOTING**

- If the drill is not cutting properly, check the drill bit for sharpness, and replace drill bits with excessive wear. Check that the drill is set to forward rotation for normal use.
- · If your drill will not operate, check the power at the mains plug.
- Apply some lubrication when it is difficult to loosen the mixing paddle.
- If a fault cannot be rectified, return the drill to an authorized dealer for repair.

This MAXIMUM product is guaranteed for a period of five (5) years from the date of original retail purchase against defects in workmanship and materials only and is subject to the following components:

- a) Component A: The carrying case is guaranteed for a period of one (1) year from the date of original retail purchase against defects in workmanship and materials.
- b) Component B: Accessories, including drill bits and saw blades, do not carry a warranty.

Subject to the conditions and limitations described below, this product, if returned to us with proof of purchase within the stated warranty period and if covered under this warranty, will be repaired or replaced (with the same model, or one of equal value



or specification), at the sole discretion of the MAXIMUM Canada authorized repair centre ("Service Provider"). We will bear the cost of any repair or replacement and any costs of labour relating thereto.

# These warranties are subject to the following conditions and limitations:

- a) a bill of sale verifying the purchase and purchase date must be provided;
- defects in workmanship and material to be assessed and determined by the Service Provider;
- this warranty will not apply to any product or part thereof which is worn or broken or which has become inoperative due to abuse, misuse, accidental damage, neglect or lack of proper installation, operation or maintenance (as outlined in the applicable owner's manual or operating instructions);
- d) this warranty does not apply to normal wear and tear or to expendable parts or accessories (including drill bits and saw blades) that may be supplied with the product that by their nature have a limited life span and are expected to become inoperative or unusable after a reasonable period of use;
- e) this warranty will not apply to routine maintenance and consumable items such as, but not limited to, fuel, lubricants, vacuum bags, blades, belts, sandpaper, bits, fluids, rubber O-rings, tune-ups or adjustments;
- this warranty excludes the following components that may accompany your product:
  - (1) The carrying case, which is only guaranteed for a period of one (1) year from the date of original retail purchase against defects in workmanship and materials.
  - (2) Accessories, including drill bits and saw blades, which do not carry a warranty of any kind.
- g) this warranty will not apply where damage is caused by repairs made or attempted by anyone other than the Service Provider (i.e., persons not authorized by the manufacturer), and any such unauthorized repairs or attempted repairs shall void this warranty in its entirety;
- this warranty will not apply to any parts other than original parts, except to the extent that the retailer or manufacturer or persons authorized by either of them have repaired or replaced them;

- this warranty will not apply to any product that was sold to the original purchaser as a reconditioned or refurbished product (unless otherwise specified in writing);
- this warranty will not apply to any product or part thereof if any part from another manufacturer is installed therein or any repairs or alterations have been made or attempted by unauthorized persons;
- k) this warranty will not apply to normal deterioration of the exterior finish, such as, but not limited to, scratches, dents, paint chips, or to any corrosion or discolouring by heat, abrasive and chemical cleaners;
- this warranty will not apply to component parts sold by and identified as the product of another company, which shall be covered under that product manufacturer's warranty, if any;
- m) any products replaced by the retailer in attempt to fulfill warranty obligations is subject to the original product warranty conditions and related time period as initiated by the original date of purchase; if product is purchased in Quebec, the warranty term will be extended for a period equal to the time during which the Quebec retailer possesses the product in attempt to fulfill warranty obligations; replaced product will not default to new product warranty conditions; and
- n) the retailer and manufacturer's sole obligation and the purchaser's sole remedy under this warranty shall be as set out herein. The warranties contained herein are not transferable and are given only to the purchaser. FURTHER, THE WARRANTIES SET OUT HEREIN ARE IN LIEU OF ALL OTHER WARRANTIES OR CONDITIONS, WHETHER EXPRESS, IMPLIED OR STATUTORY (INCLUDING SUCH AS ARISE UNDER THE SALE OF GOODS ACT OR THE INTERNATIONAL SALE OF GOODS ACT), ARISING OUT OF A COURSE OF DEALING OR USAGE OF TRADE OR OTHERWISE, INCLUDING, SUBJECT TO APPLICABLE LAW, ANY IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY, MERCHANTABLE QUALITY, FITNESS OR ADEQUACY FOR A PARTICULAR PURPOSE OR USE, AND ALL OTHER SUCH WARRANTIES ARE EXPRESSLY DISCLAIMED BY THE RETAILER AND MANUFACTURER.

# **ADDITIONAL LIMITATIONS**

This warranty applies only to the original purchaser and may not be transferred.

This warranty applies for a period of five (5) years from the date of original retail purchase, as indicated on the bill of sale.

Neither the retailer, MAXIMUM Canada, nor the manufacturer shall be liable for any other expense, loss or damage, including, without limitation, any indirect, incidental, consequential or exemplary damages arising in connection with the sale, use or inability to use this product.

Under no circumstances shall the retailer, MAXIMUM Canada, or manufacturer be liable to the purchaser for any claim for (a) indirect, special, punitive, incidental, exemplary, or consequential damages; (b) compensation for loss of profits, anticipated revenue, savings or goodwill, or other economic loss of the purchaser; (c) exemplary, aggravated or punitive damages howsoever incurred; (d) contribution or set-off in respect of any claims against the purchaser; (e) any damages whatsoever relating to third party products or services or the purchaser's

materials; or (f) any damages whatsoever relating to interruption, delays, errors or omissions; in each case under any theory of law or equity, arising out of or in any way related to this warranty, even if advised of the possibility thereof. Notwithstanding any provision herein or entitlement of the purchaser at law, in equity or otherwise, in no event shall the liability of the retailer or manufacturer under this warranty, whether in contract, tort, product liability or otherwise, exceed, in the aggregate, the amount paid by the purchaser to the retailer for the product to which this warranty applies.

# **NOTICE TO CONSUMER**

This warranty gives you specific legal rights, and you may have other rights, which may vary from province to province. The provisions contained in this warranty are not intended to limit, modify, take away from, disclaim or exclude any statutory warranties set forth in any applicable provincial or federal legislation.

In addition to the 5-Year Limited Warranty, this MAXIMUM product is covered by our:

## 1-YEAR REPAIR WARRANTY

MAXIMUM Canada will maintain this product and replace critical parts which have worn beyond reasonable use through normal use of such product, any time during the first year after purchase.

The following are excluded from this 1-Year Repair Warranty:

- a) Missing or damaged parts or components that are a result of abuse or misuse;
   and
- b) Any wear and tear to non-critical parts or accessories that do not affect the core function of the product.

## 90-DAY SATISFACTION GUARANTEE

If you are not completely satisfied with the performance of your MAXIMUM product for any reason, you can return it within 90 days from the date of purchase with proof of purchase for exchange or a full refund.

Imported by MAXIMUM Canada Toronto, Canada M4S 2B8
Made in China