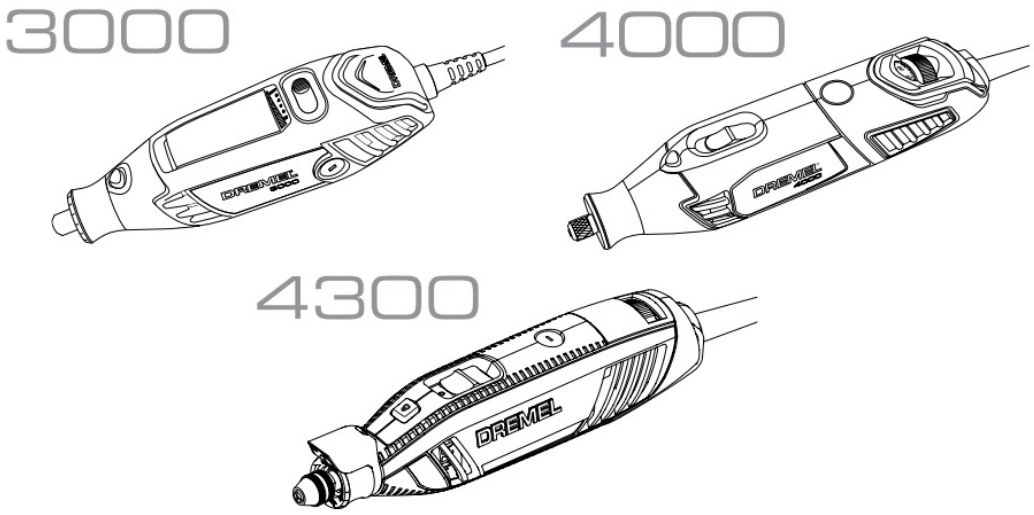
DREMEL 3000 Variable Speed Rotary Tool Instruction Manual

DREMEL®

3000 Variable Speed Rotary Tool
Instruction Manual

Contents

3000 Variable Speed Rotary Tool



EU Original declaration of conformity
Small rotary tool Article number
We declare under our sole responsibility that the stated products comply with all applicable provisions of the directives and regulations listed below and are in conformity with the following standards. Technical file at:*

3000 4000 4300	F0133000.. F0134000.. F0134300..
2006/42/EC 2014/30/EU 2011/65/EU 2009/125/EC (Regulation 1194/2012) (4300)	EN 60745-1:2009 / A11:2010 EN 60745-2-23:2013 EN 55014-1:2006 + A1:2009 + A2:2011 EN 55014-2:1997 + A1:2001 + A2:2008 EN 61000-3-2:2014 EN 61000-3-3:2013 EN 50581:2012

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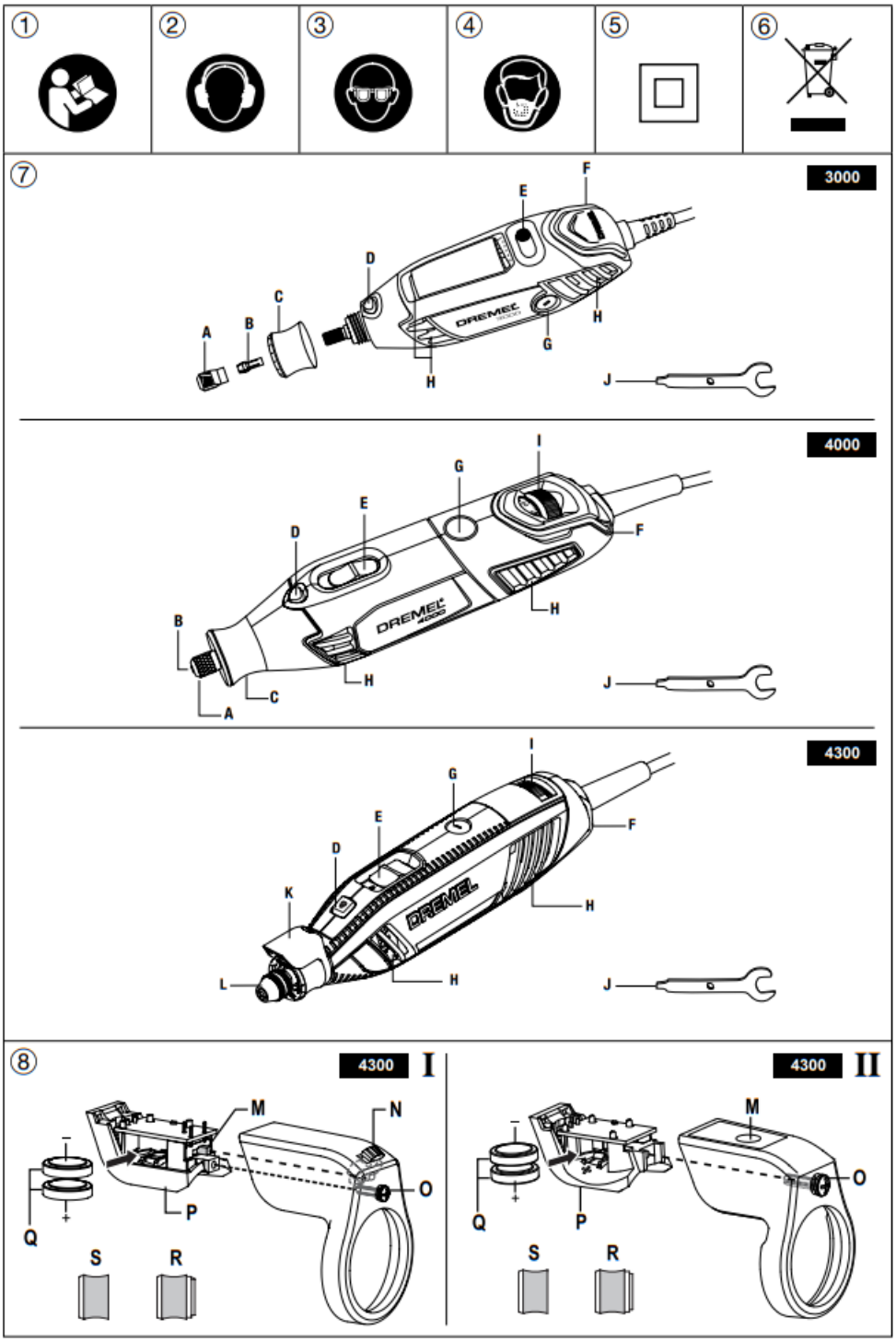
Bosch Power Tools B.V., Konijnenberg 60, 4825 BD Breda, The Netherlands 0 4.07.18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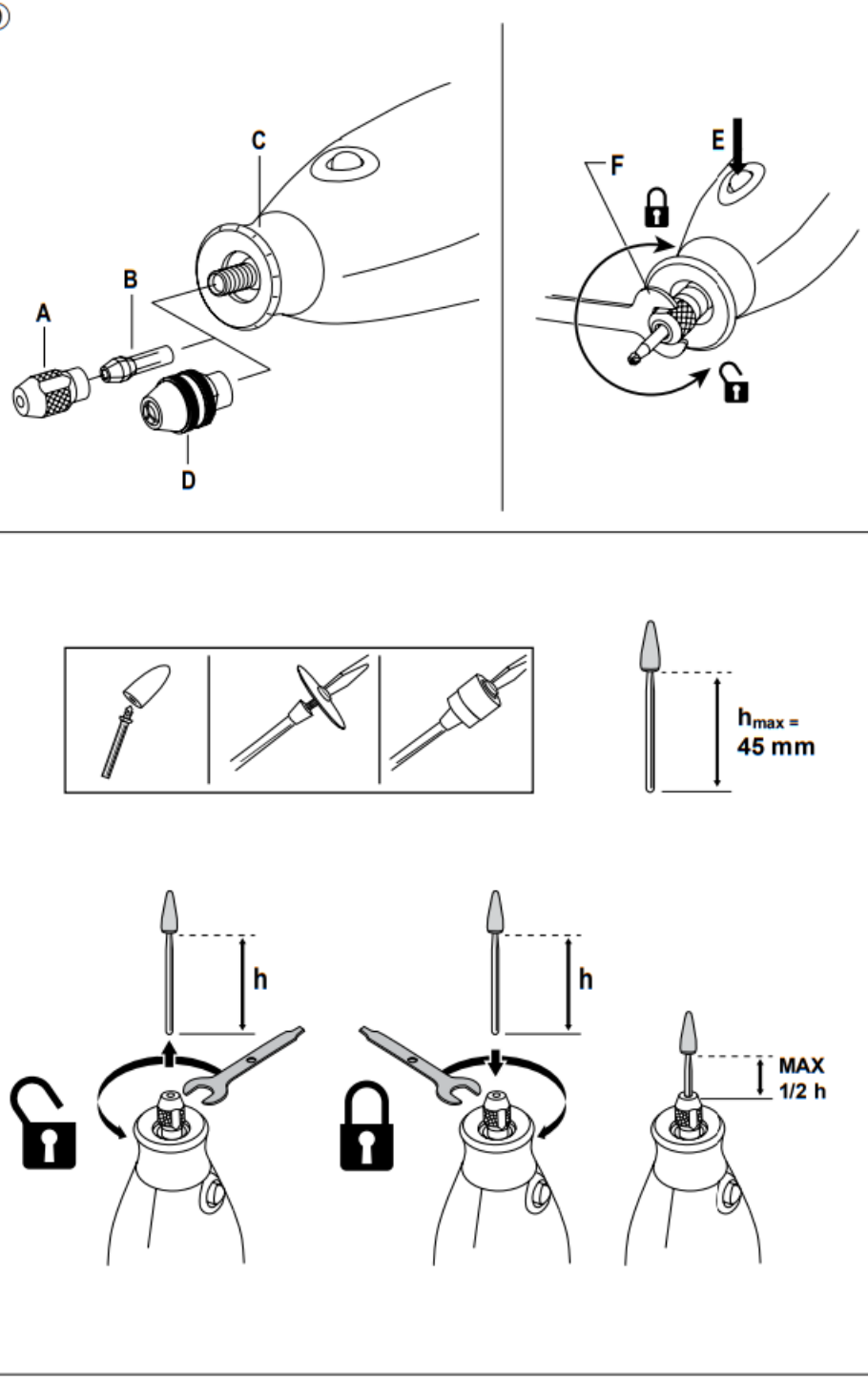

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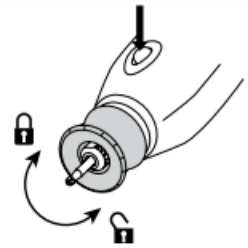

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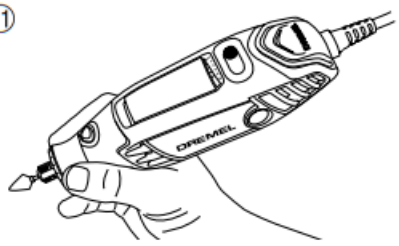

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3000	RPM	4000	RPM	4300	RPM
1-2	10,000-14,000	5	5,000	5-10	5,000-10,000
3-4	15,000-19,000	10	10,000	15	13,000-17,000
5-6	20,000-23,000	15	15,000	20	18,000-23,000
7-8	24,000-28,000	20	20,000	25	23,000-27,000
9-10	29,000-33,000	25	25,000	30	28,000-32,000
		30	30,000	35	33,000-35,000
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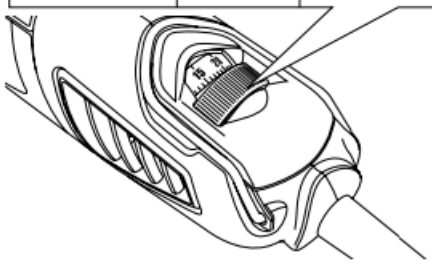

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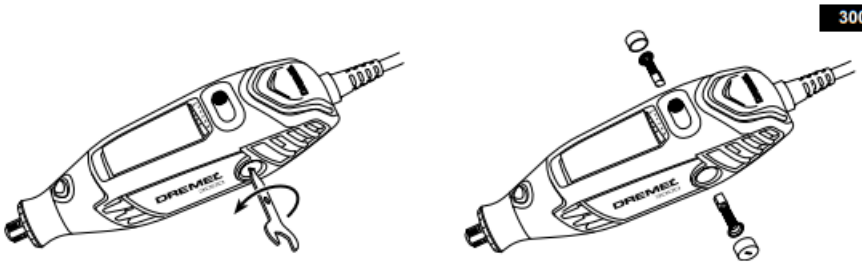

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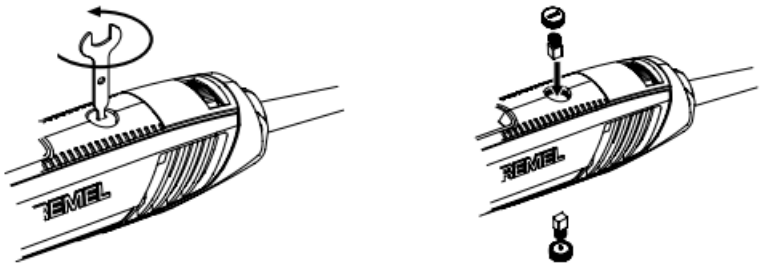
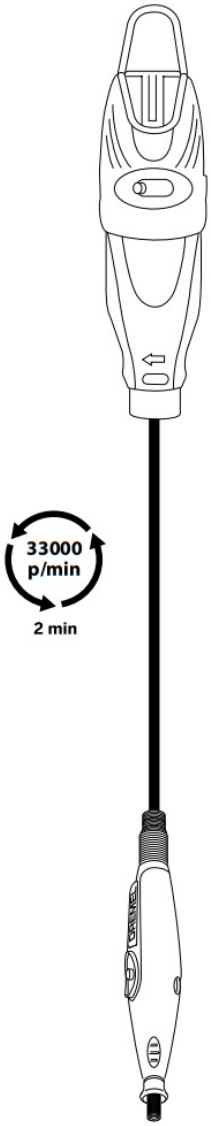
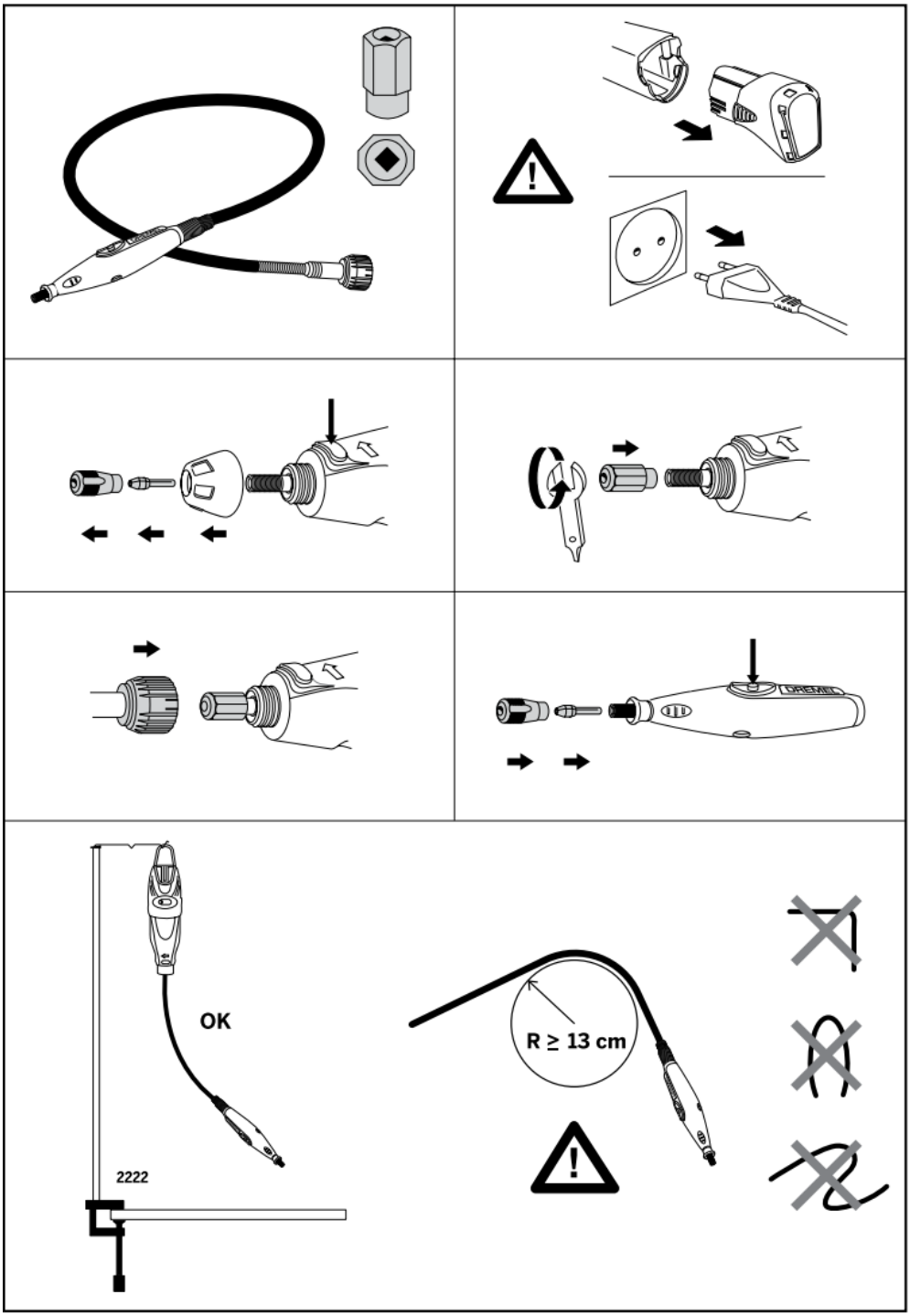




For optimum performance allow your new Flexshaft to run at high speed on your rotary tool in a vertical position for 2 minutes before use.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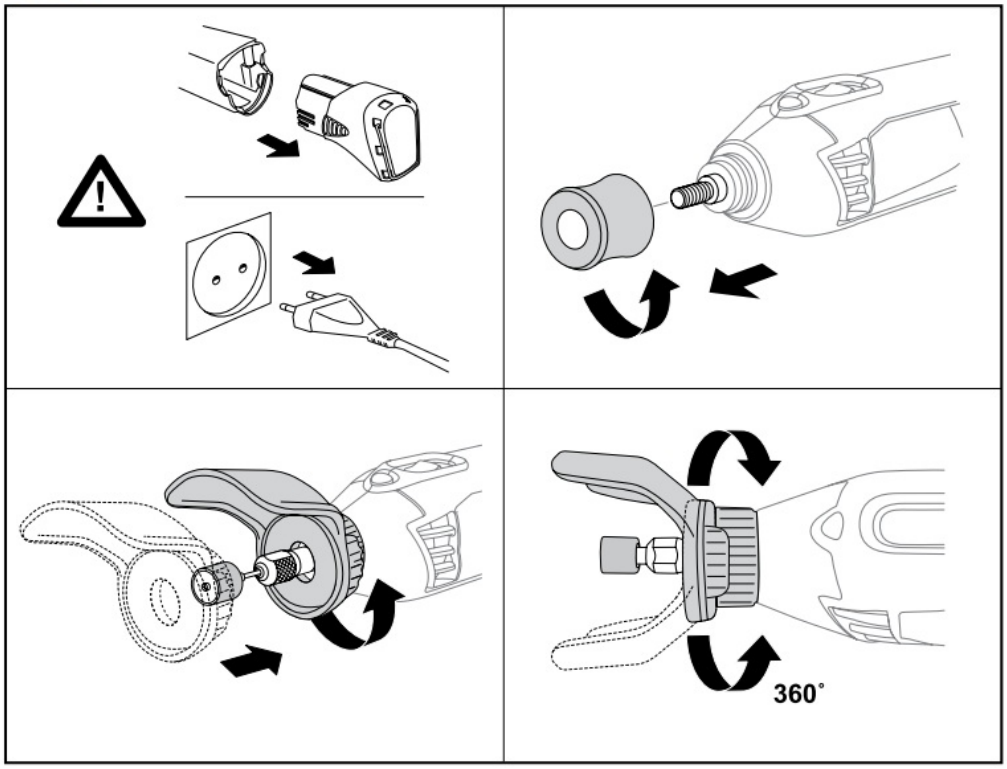
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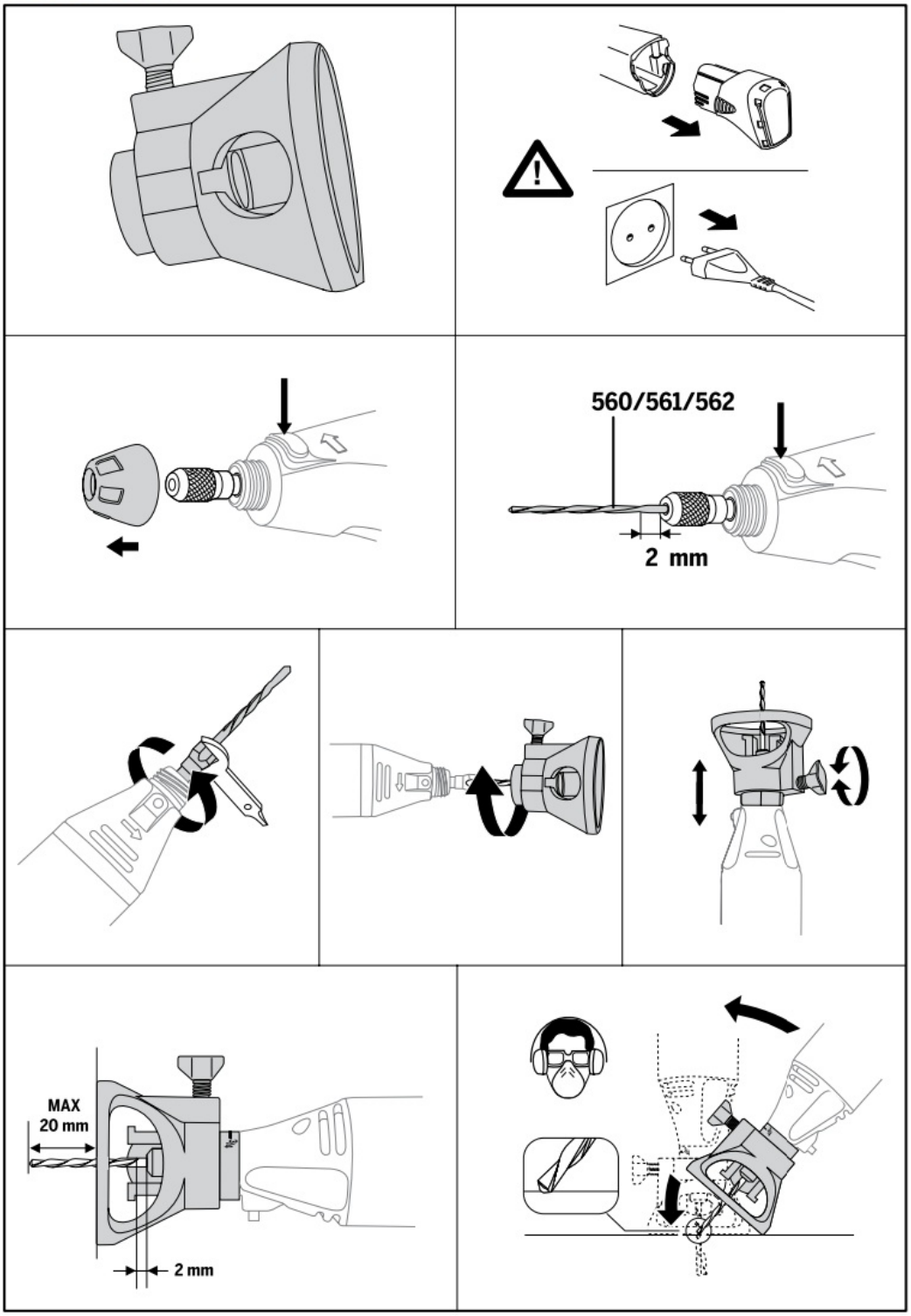

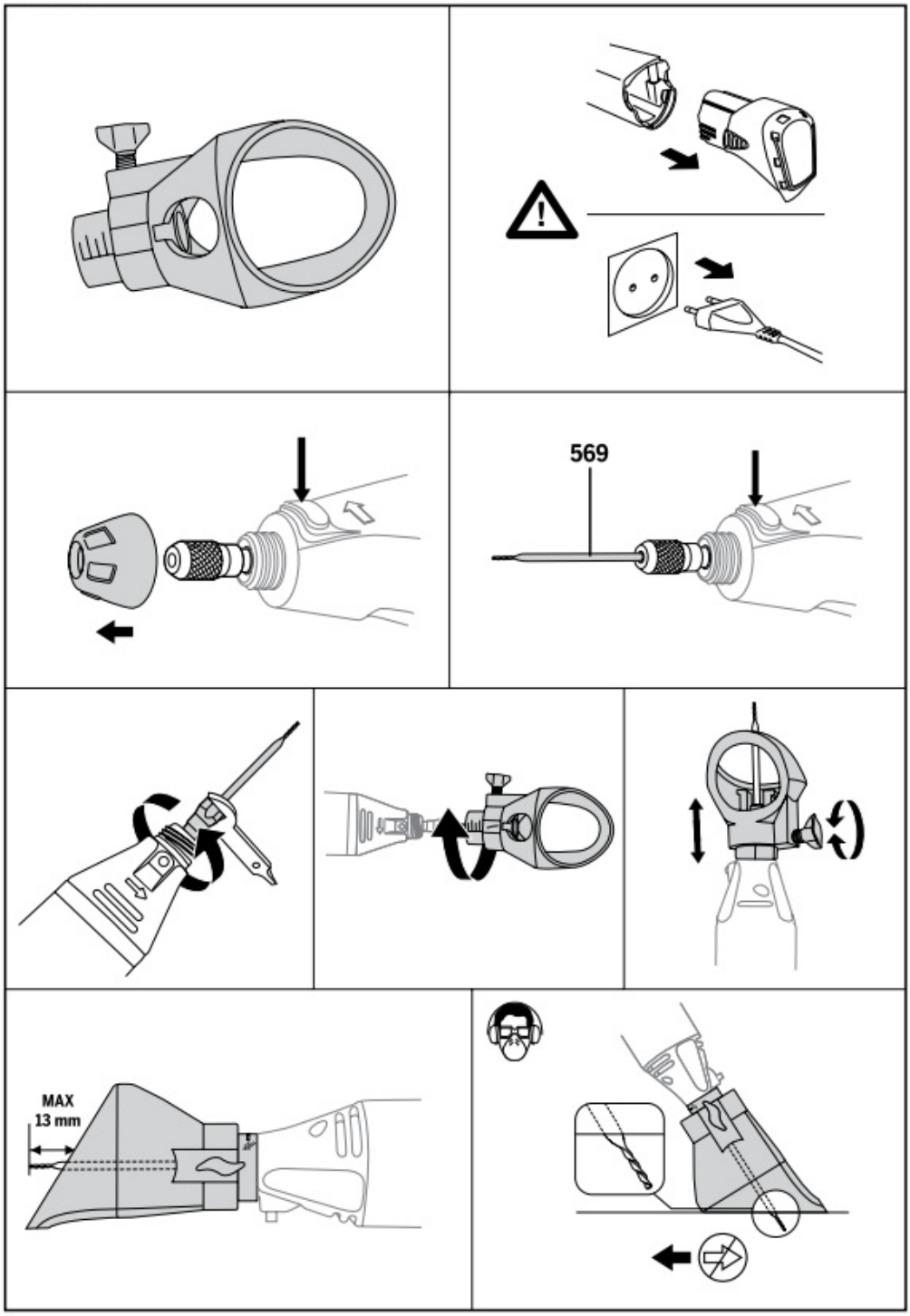
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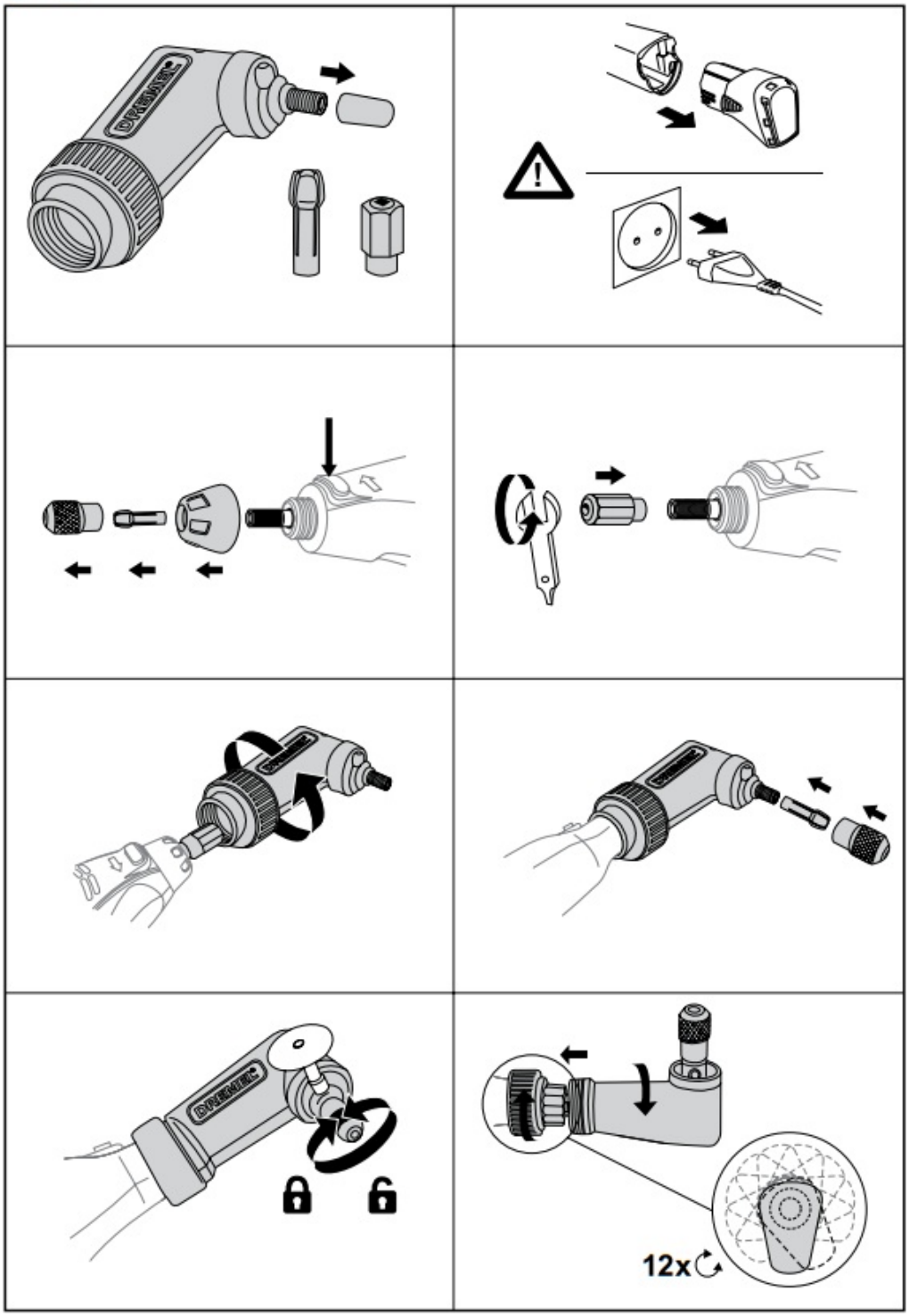
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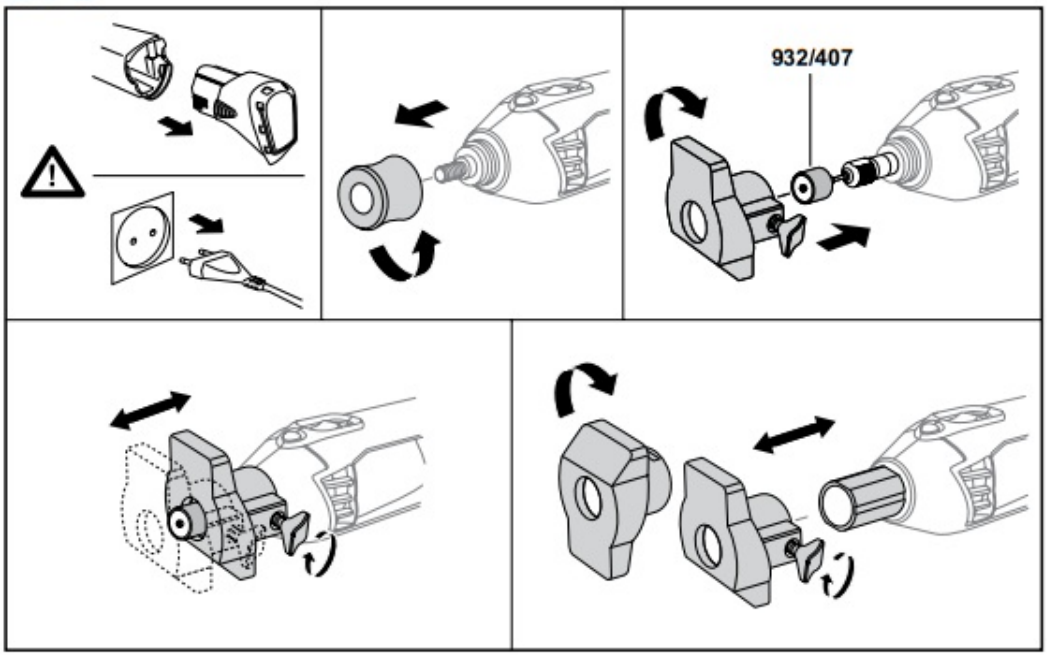

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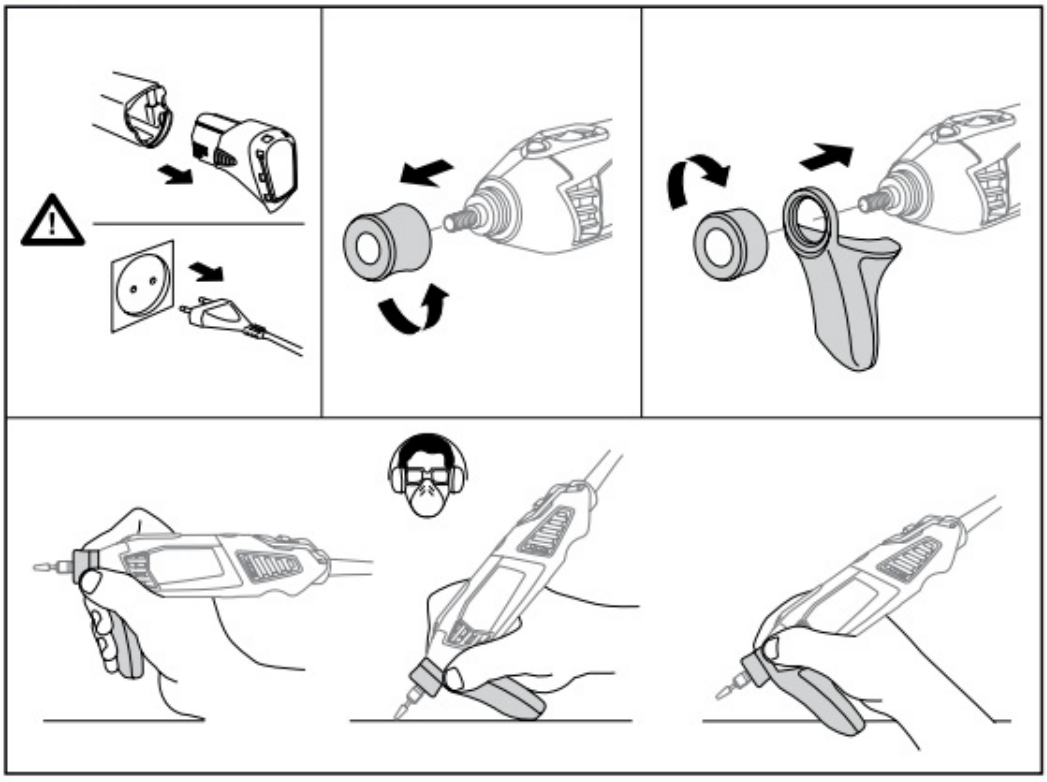

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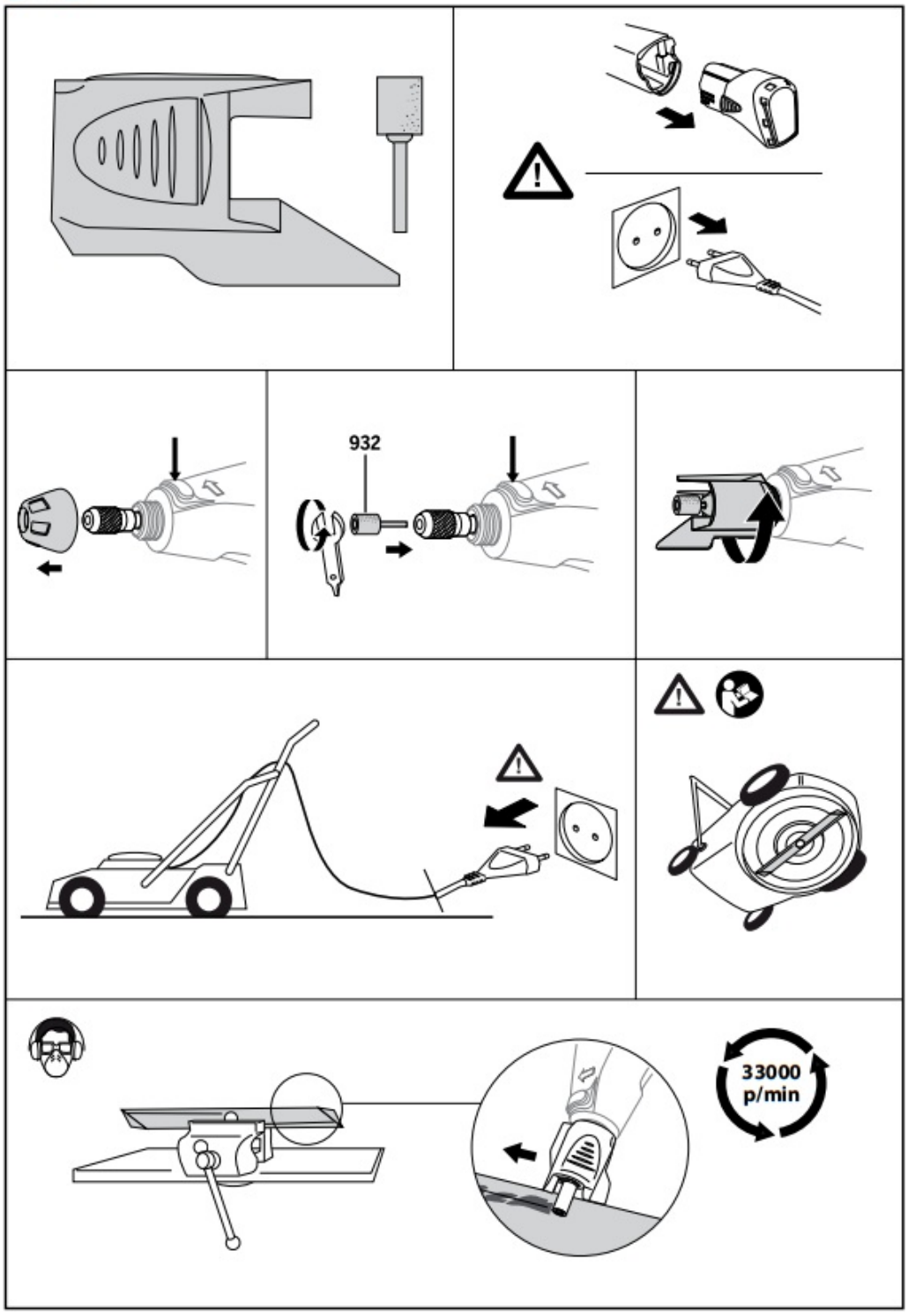

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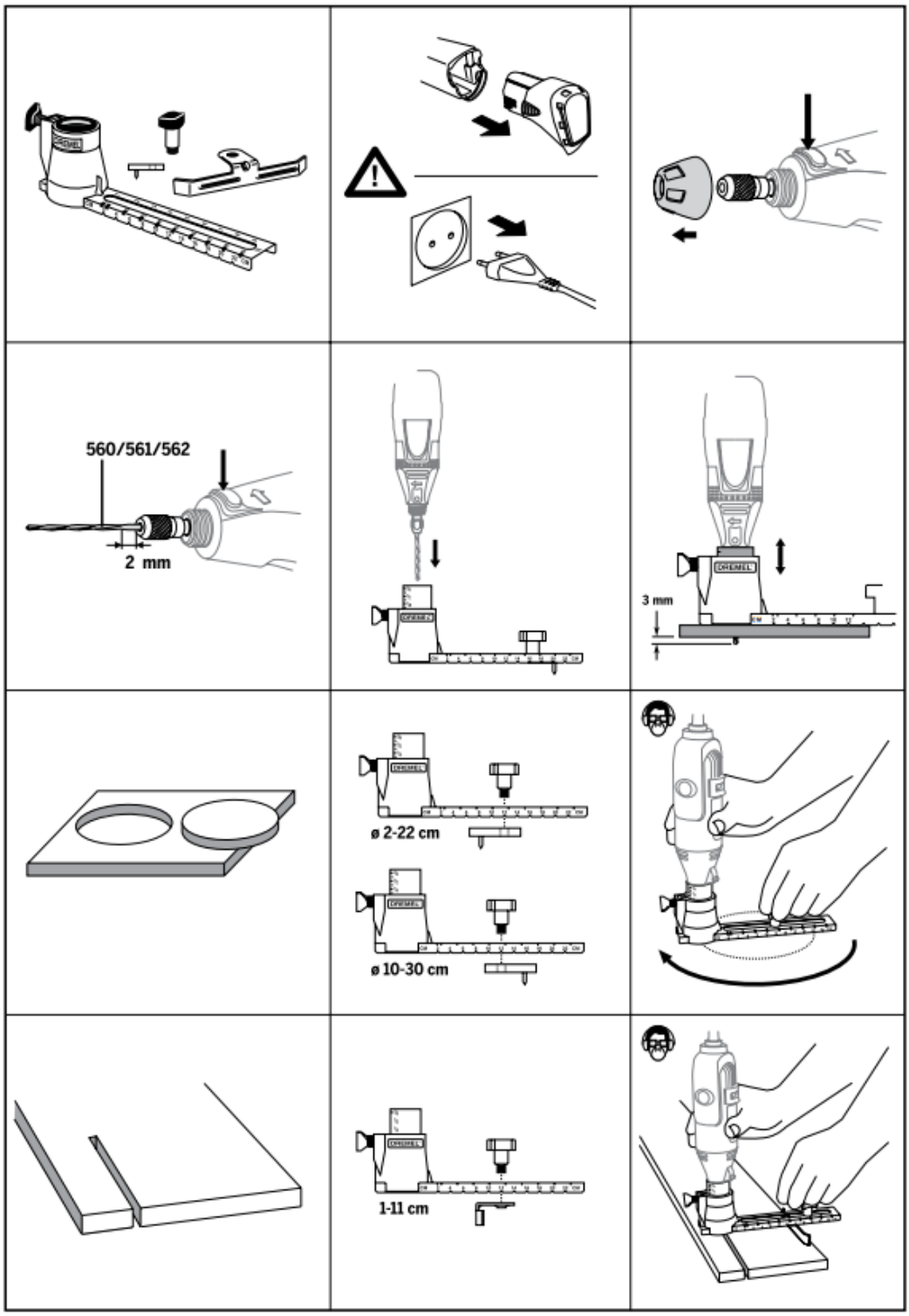
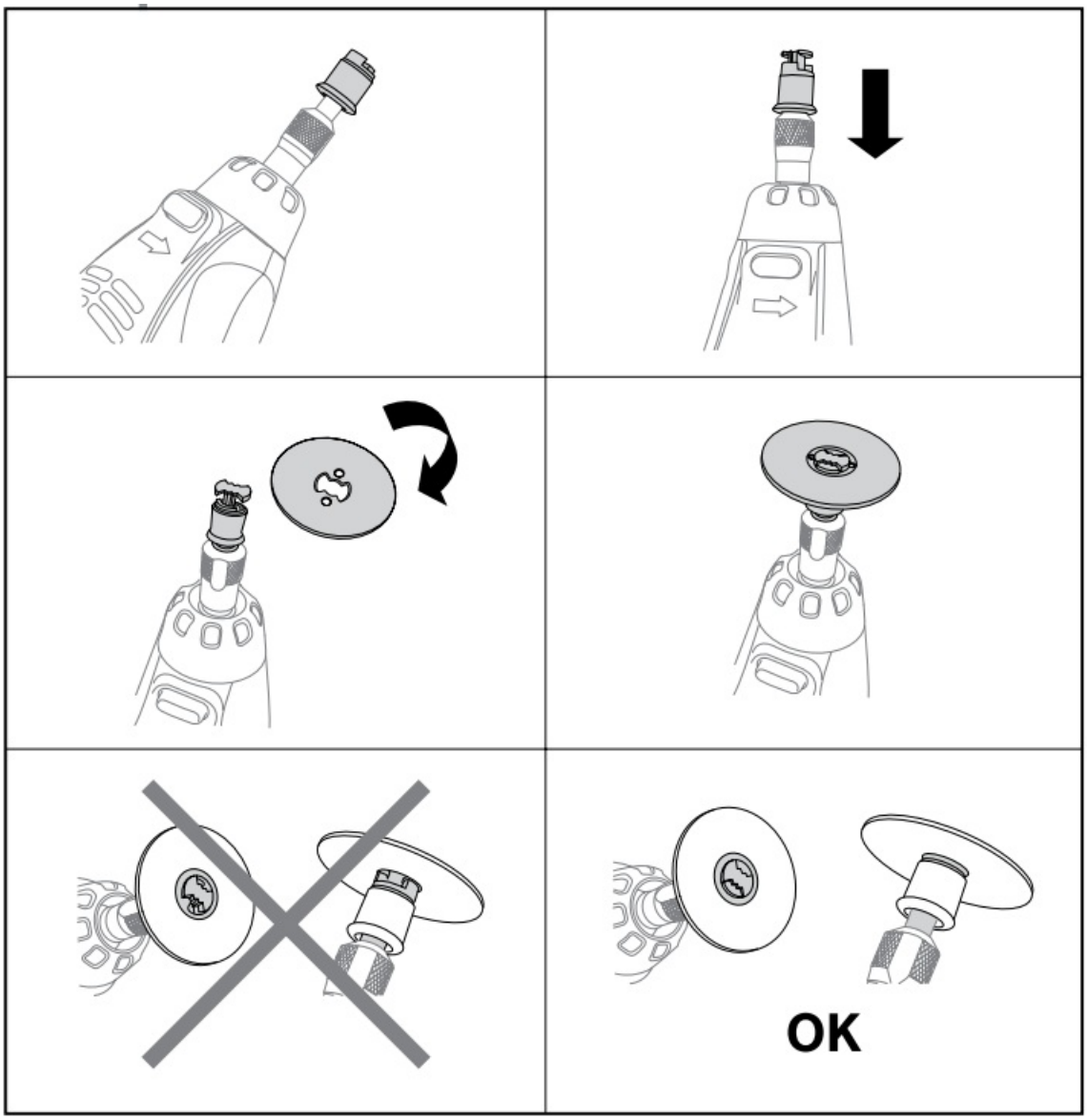


EZ Speedle



	Max RPM										
105-113	35.000			■	■			■			
114-199	30.000			■	■			■			
403-405	15.000						■	■	■	■	■
407-408	35.000			■	■		■	■	■	■	■
409	35.000		402	■	■		■	■	■		■
414	20.000		401				■	■	■	■	■
420	35.000		402	■	■		■	■	■		■
422	20.000		401				■	■	■	■	■
423S	20.000		(SC)402				■	■	■	■	■
425	20.000		402				■	■	■	■	■

426	35.000		402	■	■			■	■		■
428	15.000						■	■	■	■	■
429	20.000		401				■	■	■	■	■
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442-443	15.000						■	■	■	■	■
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SC544	35.000		SC402	■	■	■					
SC545	35.000		SC402								

	Max RPM											
105-113	35.000								■	■	■	
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USED SYMBOLS

1. READ THESE INSTRUCTIONS
2. USE HEARING PROTECTION
3. USE EYE PROTECTION
4. USE A DUST MASK

5. CLASS II CONSTRUCTED
6. DO NOT DISPOSE OF POWER TOOLS INTO HOUSEHOLD WASTE

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.

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.

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.

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.

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.
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.

SAFETY INSTRUCTIONS FOR ALL OPERATIONS

SAFETY WARNINGS COMMON FOR GRINDING, SANDING, WIRE BRUSHING, POLISHING, CARVING OR ABRASIVE CUTTING-OFF OPERATIONS
a. This power tool is intended to function as a grinder, sander, wire brush, polisher, carving or cut-off tool. Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.
b. Do not use accessories which are not specifically designed and recommended by the tool manufacturer. Just because the accessory can be attached to your power tool, it does not assure safe operation.
c. The rated speed of the grinding accessories must be at least equal to the maximum speed marked on the power tool. Grinding accessories running faster than their rated speed can break and fly apart.
d. The outside diameter and the thickness of your accessory must be within the capacity rating of your power tool. Incorrectly sized accessories cannot be adequately controlled.
e. The arbor size of wheels, sanding drums or any other accessory must properly fit the spindle or collet of the power tool. Accessories that do not match the mounting hardware of the power tool will run out of balance, vibrate excessively and may cause loss of control.
f. Mandrel mounted wheels, sanding drums, cutters or other accessories must be fully inserted into the collet or chuck. If the mandrel is insufficiently held and/or the overhang of the wheel is too long, the mounted wheel may become loose and be ejected at high velocity.
g. Do not use a damaged accessory. Before each use inspect the accessory such as abrasive wheels for chips and cracks, sanding drum for cracks, tear or excess wear, wire brush for loose or cracked wires. If power tool or accessory is dropped, inspect for damage or install an undamaged accessory. After inspecting and installing an accessory, position yourself and bystanders away from the plane of the rotating accessory and run the power tool at maximum no-load speed for one minute. Damaged accessories will normally break apart during this test time.
h. Wear personal protective equipment. Depending on application, use face shield, safety goggles or safety glasses. As appropriate, wear dust mask, hearing protectors, gloves and workshop apron capable of stopping small abrasive or workpiece fragments. The eye protection must be capable of stopping flying debris generated by various operations. The dust mask or respirator must be capable of filtrating particles generated by your operation. Prolonged exposure to high intensity noise may cause hearing loss.
i. Keep bystanders a safe distance away from work area. Anyone entering the work area must wear personal protective equipment. Fragments of workpiece or of a broken accessory may fly away and cause injury beyond immediate area of operation.
j. Hold power tool by insulated gripping surfaces only, 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.
k. Always hold the tool firmly in your hand(s) during the start-up. The reaction torque of the motor, as it accelerates to full speed, can cause the tool to twist.
l. Use clamps to support workpiece whenever practical. Never hold a small workpiece in one hand and the tool in the other hand while in use. Clamping a small workpiece allows you to use your hand(s) to control the tool. Round material such as dowel rods, pipes or tubing have a tendency to roll while being cut, and may cause the bit to bind or jump toward you.
m. Position the cord clear of the spinning accessory. If you lose control, the cord may be cut or snagged and your hand or arm may be pulled into the spinning accessory.
n. Never lay the power tool down until the accessory has come to a complete stop. The spinning accessory may grab the surface and pull the power tool out of your control.
o. After changing the bits or making any adjustments, make sure the collet nut, chuck or any other adjustment devices are securely tightened. Loose adjustment devices can unexpectedly shift, causing loss of control, loose

rotating components will be violently thrown.
p. Do not run the power tool while carrying it at your side. Accidental contact with the spinning accessory could snag your clothing, pulling the accessory into your body.
q. Regularly clean the power tool's air vents. The motor's fan will draw the dust inside the housing and excessive accumulation of powdered metal may cause electrical hazards.
r. Do not operate the power tool near flammable materials. Sparks could ignite these materials.
s. Do not use accessories that require liquid coolants. Using water or other liquid coolants may result in electrocution or shock.

KICKBACK AND RELATED WARNINGS

Kickback is a sudden reaction to a pinched or snagged rotating wheel, sanding band, brush or any other accessory. Pinching or snagging causes rapid stalling of the rotating accessory which in turn causes the uncontrolled power tool to be forced in the direction opposite of the accessory's rotation. For example, if an abrasive wheel is snagged or pinched by the workpiece, the edge of the wheel that is entering into the pinch point can dig into the surface of the material causing the wheel to climb out or kick out. The wheel may either jump toward or away from the operator, depending on direction of the wheel's movement at the point of pinching.
Abrasive wheels may also break under these conditions. Kickback is the result of power tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.
a. Maintain a firm grip on the power tool and position your body and arm to allow you to resist kickback forces. The operator can control kickback forces, if proper precautions are taken.
b. Use special care when working corners, sharp edges etc. Avoid bouncing and snagging the accessory. Corners, sharp edges or bouncing have a tendency to snag the rotating accessory and cause loss of control or kickback.
c. Do not attach a toothed saw blade. Such blades create frequent kickback and loss of control.
d. Always feed the bit into the material in the same direction as the cutting edge is exiting from the material (which is the same direction as the chips are thrown). Feeding the tool in the wrong direction causes the cutting edge of the bit to climb out of the work and pull the tool in the direction of this feed.
e. When using rotary files, cut-off wheels, high-speed cutters or tungsten carbide cutters, always have the work securely clamped. These wheels will grab if they become slightly canted in the groove, and can kickback. When a cut-off wheel grabs, the wheel itself usually breaks. When a rotary file, high-speed cutter or tungsten carbide cutter grabs, it may jump from the groove and you could lose control of the tool.

SAFETY WARNINGS SPECIFIC FOR GRINDING AND ABRASIVE CUTTING-OFF OPERATIONS

a. Use only wheel types that are recommended for your power tool and only for recommended applications. For example: do not grind with the side of a cut-off wheel. Abrasive cut-off wheels are intended for peripheral grinding, side forces applied to these wheels may cause them to shatter.
b. For threaded abrasive cones and plugs use only undamaged wheel mandrels with an unrelieved shoulder flange that are of correct size and length. Proper mandrels will reduce the possibility of breakage.
c. Do not "jam" a cut-off wheel or apply excessive pressure. Do not attempt to make an excessive depth of cut. Overstressing the wheel increases the loading and susceptibility to twisting or snagging of the wheel in the cut and the possibility of kickback or wheel breakage.
d. Do not position your hand in line with and behind the rotating wheel. When the wheel, at the point of operation, is moving away from your hand, the possible kickback may propel the spinning wheel and the power tool directly at you.
e. When wheel is pinched, snagged or when interrupting a cut for any reason, switch off the power tool and hold the power tool motionless until the wheel comes to a complete stop. Never attempt to remove the cut-off wheel from the cut while the wheel is in motion otherwise kickback may occur. Investigate and take corrective action to eliminate the cause of wheel pinching or snagging.
f. Do not restart the cutting operation in the workpiece. Let the wheel reach full speed and carefully re-enter the cut. The wheel may bind, walk up or kickback if the power tool is restarted in the workpiece.
g. Support panels or any oversized workpiece to minimize the risk of wheel pinching and kickback. Large workpieces tend to sag under their own weight. Supports must be placed under the workpiece near the line of cut and near the edge of the workpiece on both sides of the wheel.
h. Use extra caution when making a "pocket cut" into existing walls or other blind areas. The protruding wheel may cut gas or water pipes, electrical wiring or objects that can cause kickback.

SAFETY WARNINGS SPECIFIC FOR WIRE BRUSHING OPERATIONS

a. Be aware that wire bristles are thrown by the brush even during ordinary operation. Do not overstress the wires by applying excessive load to the brush. The wire bristles can easily penetrate light clothing and/or skin.
b. Allow brushes to run at operating speed for at least one minute before using them. During this time no one is to stand in front or in line with the brush. Loose bristles or wires will be discharged during the run-in time.
c. Direct the discharge of the spinning wire brush away from you. Small particles and tiny wire fragments may be

discharged at high velocity during the use of these brushes and may become imbedded in your skin.
d. Do not exceed 15,000 RPM when using wire brushes

 DO NOT WORK WITH MATERIALS CONTAINING ASBESTOS (asbestos is considered carcinogenic)

 TAKE PROTECTIVE MEASURES WHEN DURING WORK DUST CAN DEVELOP THAT IS HARMFUL TO ONE'S HEALTH, COMBUSTIBLE OR EXPLOSIVE (some dusts are considered carcinogenic); wear a dust mask and work with dust/chip extraction when connectable

SPECIFICATIONS

Model number	3000
Input	130 W
Voltage	230 V, 50 Hz
Speed	33,000/min
Collet capacity	3.2 mm
Max. accessory ∅	38.1 mm
Weight	0.5 kg

Model number	4000
Input	175 W
Voltage	230-240 V, 50-60 Hz
Speed	35,000/min
Collet capacity	3.2 mm
Max. accessory ∅	38.1 mm
Weight	0.6 kg

Model number	4300
Input	175 W
Voltage	220-240 V, 50-60 Hz
Speed	35,000/min
Collet capacity	0.8-3.4 mm
Max. accessory ∅	38.1 mm
Weight	0.6 kg

Use completely unrolled and safe extension cords with a capacity of 5 Amps.
Always check that the supply voltage is the same as the voltage indicated on the nameplate of the tool.
GENERAL 7
A. Collet nut
B. Collet
C. Nose cap (EZ Twist integrated wrench*)

D. Shaft lock button
E. On/Off and variable speed slide switch (3000)
E. On/Off switch (4000/4300)
F. Hanger
G. Brush cover
H. Ventilation openings
I. Variable speed dial (4000/4300)
J. Collet wrench
K. Light module (4300)
L. Dremel chuck (4300) *) not standard included

LIGHT MODULE I & II (4300) 8

M. On/Off switch
N. Slider (I)
O. Screw
P. Battery compartment
Q. Batteries (2 x CR1025)
R. New style nose cap
S. Old style nose cap

The light of this power tool's direct area of working operation and is not suitable for household room illumination.

This product contains a lithium button/coin cell battery. If a new or used lithium button/coin cell battery is swallowed or enters the body, it can cause severe internal burns and can lead to death in as little as 2 hours. Always completely secure the battery compartment. If the battery compartment does not close securely, stop using the product, remove the batteries, and keep it away from children. If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.

INITIAL SET-UP

In order to use the light for the first time, you will have to remove the battery tab from the battery compartment. Pull this tab out and test the light using the switch on top. If the light does not work, use a small screwdriver to check the placement of the batteries and to check that all of the tab has been removed.

CHANGING BATTERIES

To change the batteries for the light module, begin by unscrewing the nose cap to remove the light module. Once it is removed, use a small screwdriver to loosen the screw on the battery compartment. Do not pull the screw out completely. Remove the battery compartment housing from the underside of the module.

Slide the old batteries out and replace with new batteries making sure to replicate the orientation of the original batteries. With the new batteries in place, replace the battery compartment housing and re-tighten the screw. When reassembling make sure that the switch and the slider are both in the same ON (I) or OFF (O) position. This way the switch will match the 'fork' of the slider. (I)

INSTALLATION AND USE

To install the light module on the tool, begin by unscrewing the nose cap from the end of the tool. Slide the light module onto the end of the tool with the light pointing forward. Re-tighten the nose cap on the end of the tool to squeeze the light module ring in place. The light module will only work with the new style nose cap R that came with the tool.

To turn the light on or off

- put the slider in ON- or OFF position (I)
- press the on/off switch (II)

To reposition the light module, simply loosen the nose cap, rotate the light module as desired, and re-tighten the nose cap.

ACCESSORIES

ALWAYS UNPLUG THE TOOL BEFORE CHANGING ACCESSORIES

Use only Dremel tested, high performance accessories. Be sure to read the instructions supplied with your Dremel accessory for further information on its use. Handle and store accessories carefully to avoid chipping and cracking.

CHANGING ACCESSORIES 9

A. Collet nut
B. Collet (3.2 mm)
C. Nose cap (EZ Twist integrated wrench*)
D. Dremel chuck 4486*
E. Shaft lock button
F. Wrench
*) not standard included

1. Press the shaft lock button and rotate the shaft by hand until it engages the shaft lock. Do not engage the shaft lock while the tool is running.
2. With the shaft lock engaged, loosen (do not remove) the collet nut. Use the collet wrench if necessary.
3. Insert the bit or accessory shank fully into the collet.
4. With the shaft lock engaged, tighten the collet nut.

EZ TWIST INTEGRATED WRENCH 10

This nose cap has an integrated wrench allowing you to loosen and tighten the collet nut without the use of the standard collet wrench.

1. Unscrew the nose cap from the tool, line-up the steel insert on inside of the cap with the collet nut.
2. With the shaft lock engaged twist nose cap counter clockwise to loosen the collet nut. Do not engage the shaft lock while the tool is running.
3. Insert the bit or accessory shank fully into the collet.
4. With the shaft lock engaged twist nose cap clockwise to tighten the collet nut.
5. Screw the nose cap back into its original position.

DREMEL CHUCK 4486 (4300)

The Dremel chuck allows you to quickly and easily change accessories on Dremel tools without changing collets. Accepts accessories with 0.8 – 3.2 mm shank. To loosen, first press shaft lock button and rotate the shaft by hand until it engages the shaft lock. Do not engage the shaft lock while the tool is running.
With the shaft lock engaged use the wrench or the EZ Twist nose cap to loosen the chuck and open the jaws. Remove the accessory from the chuck. If necessary, continue loosening the chuck so that the new accessory fits between the jaws. Insert the new accessory into the chuck far enough so that there is approximately 6 mm between the end of the chuck and the beginning of the working part of the accessory. With the shaft lock engaged, tighten the chuck using the EZ Twist nose cap or wrench to secure the accessory.

HELPFUL TIPS WHEN USING THE DREMEL CHUCK

- The Dremel chuck and the collet and collet nut system are interchangeable on this tool. While the chuck will provide you with the best experience for changing accessories, the collet and collet nut will provide a more precise accessory holding solution especially in heavier side load applications.
- If you find the accessory slipping in the chuck, use theincluded EZ Twist nose cap or wrench to tighten the chuck around the bit. If further slippage persists, switch to using the collet and collet nut.
- The jaws of the chuck can become displaced causing the accessory to no longer run true and concentric (run-out).

To reset the jaws, apply the following procedure:

1. Remove the accessory from the chuck.
2. Clean the chuck.

3. Press shaft lock button and tighten the chuck until the jaws extend past the outer surface of the chuck, approximately 3 mm.
4. Push the end of the chuck firmly against a hard flat surface to be sure the jaws are all seated axially.
5. Continue to hand tighten the chuck until the jaws completely close.
6. Loosen the chuck, and reinsert a straight accessory.
7. Turn the tool by hand and observe if there is any runout. If there is obvious run-out, repeat the procedure.
8. With the shaft lock engaged, tighten the chuck using the EZ Twist nose cap or wrench to secure the accessory.
9. Turn the tool on to the lowest speed setting and observe for run-out. If there is obvious run-out, check that the accessory is straight before repeating the procedure.

BALANCING ACCESSORIES

For precision work, it is important that all accessories be in good balance (much the same as the tires on your automobile). To true up or balance an accessory, slightly loosen collet nut and give the accessory or collet a 1/4 turn. Re tighten collet nut and run the rotary tool. You should be able to tell by the sound and feel if your accessory is running in balance. Continue adjusting in this fashion until best balance is achieved.

ATTACHMENTS

The Dremel tool can be equipped with the following attachments for expanding its functionality:

- Flexible shaft *) for precise, detailed work or hard-toreach places (225 – pages 7-8)
- Comfort guard attachment to protect you from dust and sparks (550 – page 9)
- Multipurpose cutting kit for controlled cutting in a variety of materials (565/566 – page 10)
- Wall & floor grout removal kit for removing grout from between wall and floor tiles (568 – page 11)
- Right angle attachment to use accessories in right angle for hard-to-reach places (575 – page 12)
- Shaping platform to sand and grind at perfect 90° and 45° angles (576 – page 13)
- Detailer's grip to have even better control of the too (577 – page 13)
- Lawn mower & garden tool sharpener for easy and quick sharpening at the optimum angle (675 – page 14)
- Line & circle cutter to make perfect holes and straight cuts (678 – page 15)
- 'EZ SpeedClic' mandrel for mounting 'EZ SpeedClic' accessories (page 16)

*) When using a new flexible shaft for the first time, keep it in a vertical position for two minutes with the tool running at high speed.

NOTE: Not all attachments listed above are standard included with the tool/kit

USE

GETTING STARTED

The first step in using the multitool is to get the "feel" of it. Hold it in your hand and feel its weight and balance. Feel the taper of the housing. This taper permits the tool to be grasped much like a pen or pencil.

IMPORTANT! Practice on scrap material first to see how the tool's high-speed action performs. Keep in mind that your multitool will perform best by allowing the speed, along with the correct Dremel accessory and attachment, to do the work for you. Do not put pressure on the tool during use, if possible. Instead, lower the spinning accessory lightly to the work surface and allow it to touch the point at which you want to begin. Concentrate on guiding the tool over the work using very little pressure from your hand. Allow the accessory to do the work. Usually it is better to make a series of passes with the tool rather than to do the entire job with one pass. A gentle touch gives the best control and reduces the chance of error.

HOLDING THE TOOL

Always hold the tool away from your face. Accessories can be damaged during handling and can fly apart as they

come up to speed.
When holding tool, do not cover the ventilation openings with your hand. Blocking the ventilation openings could cause the motor to overheat. For best control in close work, grip the multitool like a pencil between your thumb and forefinger. 11
The “golf” grip method is used for heavier operations such as grinding or cutting. 12

ON/OFF

The tool is switched “ON” by the slide switch located on the top side of the motor housing.
TO TURN THE TOOL “ON”, slide the switch button forward.
TO TURN THE TOOL “OFF”, slide the switch button backward.

ELECTRONIC FEEDBACK (4000/4300)

Your tool is equipped with an internal electronic feedback system that provides a ‘soft start’, which will reduce the stresses that occur from a high torque start. The system also helps to keep the preselected speed virtually constant between no-load and load conditions.

VARIABLE SPEED SLIDE SWITCH (3000)

Your tool is equipped with a variable speed slide switch. The speed may be adjusted during operation by sliding the switch back or forth between any one of the settings. To select the right speed for each job, use a practice piece of material.

VARIABLE SPEED DIAL (4000/4300)

Your tool is equipped with a variable speed dial. The speed may be adjusted during operation by presetting the dial on or between any one of the settings.
To select the right speed for each job, use a practice piece of material.

OPERATING SPEEDS 13

Refer to the chart on pages 17-18 to help determine the proper speed for the material being worked on and the accessory to use.
Do not exceed 15,000 rpm when using wire brushes. Wire brush setting (4300) = 5-10
Most jobs can be accomplished using the tool at the highest setting. However, certain materials (some plastics and metals) can be damaged by high-speed generated heat and should be worked on at relatively low speeds. Low speed operation (15,000 rpm or less) is usually best for polishing operations employing the felt polishing accessories. All brushing applications require lower speeds to avoid wire discharge from the holder. Let the performance of the tool do the work for you when using lower speed settings. Higher speeds are better for hardwoods, metals and glass and for drilling, carving, cutting, routing and shaping.
Some guidelines regarding tool speed:

- Plastic and other materials that melt at low temperatures should be cut at low speeds.
- Polishing, buffing and cleaning with a wire brush must be done at speeds no greater than 15,000 rpm to prevent damage to the brush and your material.
- Wood should be cut at high speed.
- Iron or steel should be cut at high speed.
- If a high speed steel cutter starts to vibrate, it usually indicates that it is running too slowly.
- Aluminum, copper alloys, lead alloys, zinc alloys and tin may be cut at various speeds, depending on the type of cutting being done. Use a paraffin (not water) or other suitable lubricant on the cutter to prevent the cut material from adhering to the cutter teeth.

  NOTE: Increasing pressure on the tool is not the answer when it is not performing properly. Try a different accessory or speed setting to achieve the desired result.

MAINTENANCE AND CLEANING

 NO USER SERVICEABLE PARTS INSIDE (you can only inspect and replace the carbon brushes (3000/4300)). PREVENTIVE MAINTENANCE PERFORMED BY UNAUTHORIZED PERSONNEL MAY RESULT IN INCORRECT CONNECTION OF INTERNAL WIRING AND COMPONENTS WHICH COULD CAUSE SERIOUS HAZARD.
INSPECTING/REPLACING CARBON BRUSHES (3000/4300) 14
Inspect the brushes for wear every 40-50 hours of use.

Also inspect the brushes when the tool runs erratically, loses power, or makes unusual noises. Using the tool with worn brushes will permanently damage the motor.
Use only original DREMEL replacement brushes.

1. Unplug the tool and place it on a clean surface.
2. Remove the two brush caps with the tool wrench as a screwdriver.
3. Remove the two brushes from the tool by pulling the springs that are attached.
4. Inspect both brushes. If a brush is less than 3mm long and/or the surface of the brush is rough or pitted, replace the carbon brush by a new one:
   – remove the spring from the brush
   – throw away the old brush and place the spring on a new brush
5. Place the carbon brushes (with spring) back into the tool (there is only one way the brush will fit back into the tool).
6. Replace the brush caps by turning the caps clockwise (to tighten, use the wrench – do not overtighten).

NOTE: If one brush is worn, you should replace both brushes for better performance of the tool.
The tool can be cleaned most effectively with compressed dry air. Always wear safety goggles when cleaning tools with compressed air.

 TO AVOID ACCIDENTS, ALWAYS DISCONNECT THE TOOL AND/OR CHARGER FROM THE POWER SUPPLY BEFORE CLEANING
Ventilation openings and switch levers must be kept clean and free of foreign matter. Do not attempt to clean the tool by inserting pointed objects through an opening.

 CERTAIN CLEANING AGENTS AND SOLVENTS DAMAGE PLASTIC PARTS. Some of these are: gasoline, carbon tetrachloride, chlorinated cleaning solvents, ammonia and household detergents that contain ammonia.

SERVICE AND WARRANTY

We recommend that all tool service be performed by a Dremel Service Centre.
This Dremel product is guaranteed in accordance with statutory/country-specific regulations; damage due to normal wear and tear, overload or improper handling are excluded from the warranty.
In case of a complaint, send the undismantled tool and/or charger and proof of purchase to your dealer.
CONTACT DREMEL
For more information on service and warranty, the Dremel product range, support and hotline, go to www.dremel.com.

NOISE AND VIBRATION

3000

Sound pressure level (standard deviation 3dB) dB(A)	77.1
Sound power level (standard deviation 3dB) dB(A)	88.1
Vibration (triax vector sum) m/s²	12.8
Vibration uncertainty K m/s²	1.5

4000

Sound pressure level (standard deviation 3dB) dB(A)	78
Sound power level (standard deviation 3dB) dB(A)	89
Vibration (triax vector sum) m/s²	11.4
Vibration uncertainty K m/s²	1.5

4300

Sound pressure level (standard deviation 3dB) dB(A)	74.4
Sound power level (standard deviation 3dB) dB(A)	85.4
Vibration (triax vector sum) m/s²	9
Vibration uncertainty K m/s²	1.5

NOTE: The declared vibration total value has been measured in accordance with a standard test method and may be used for comparing one tool with another. It may also be used in a preliminary assessment of exposure. The vibration emission during actual use of the power tool can differ from the declared total value depending on the ways in which you use the tool.
Make an estimation of the exposure in the actual conditions of use and identify the safety measures for personal protection accordingly (taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger time).

DISPOSAL

The tool, accessories and packaging should be sorted for environmental-friendly recycling. ONLY FOR EC COUNTRIES 6
According the European Guideline 2012/19/EC for Waste Electrical and Electronic Equipment and its implementation into national right, power tools that are no longer usable must be collected separately and disposed of in an environmentally correct manner.

DREMEL®

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Documents / Resources

	DREMEL 3000 Variable Speed Rotary Tool [pdf] Instruction Manual 3000 Variable Speed Rotary Tool, 3000, Variable Speed Rotary Tool, Speed Rotary Tool, Rotary Tool, Tool

References

- Dremel Tools - Rotary, Saws, Oscillating and more | Dremel
- Dremel Tools - Rotary, Saws, Oscillating and more | Dremel
- User Manual

Manuals+,