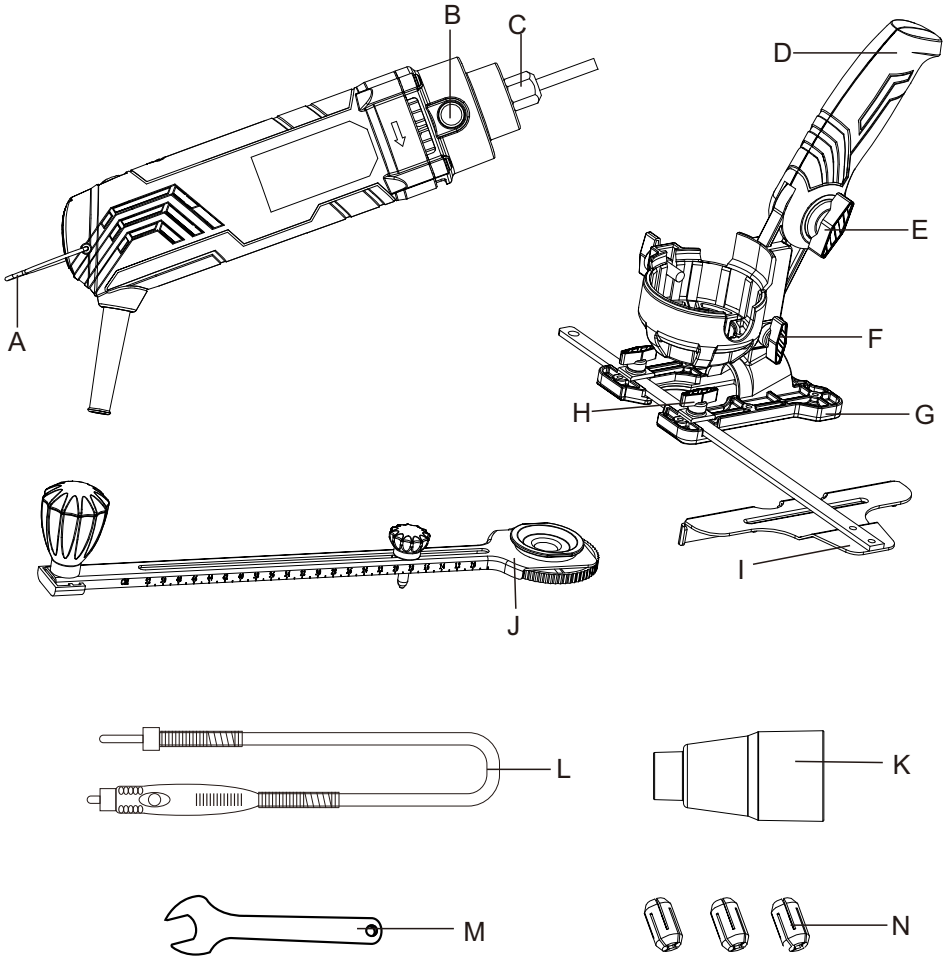


MULTI ROTARY TOOL

Model No: R5103



①



A. hanging loop

B. Spindle lock button

C. Chuck nut

D. Easy-grip control handle

E. Control handle lock screw

F. Depth gauge lock screw

G. Base

H. Guide stop lock screw

I. Adjustable guide stop

J. Circular cutter

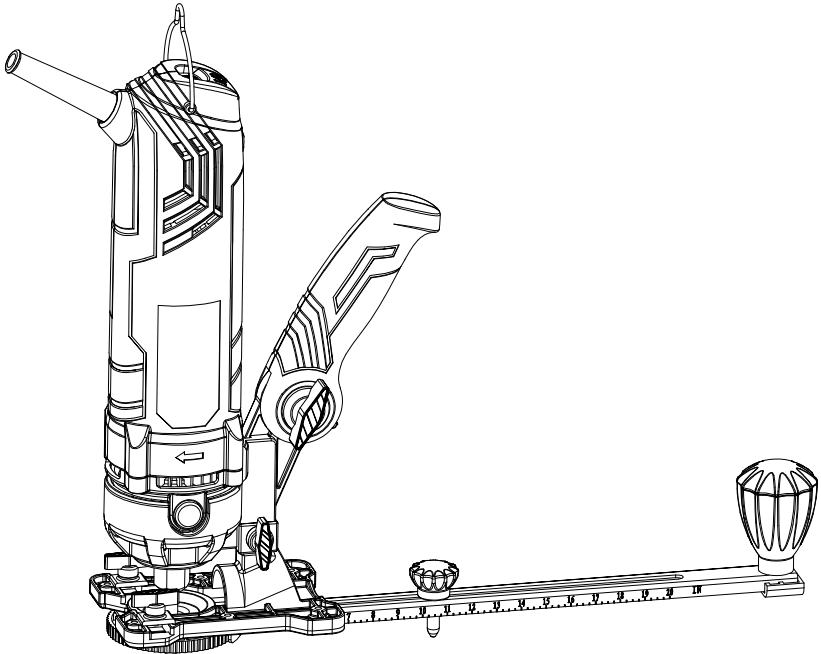
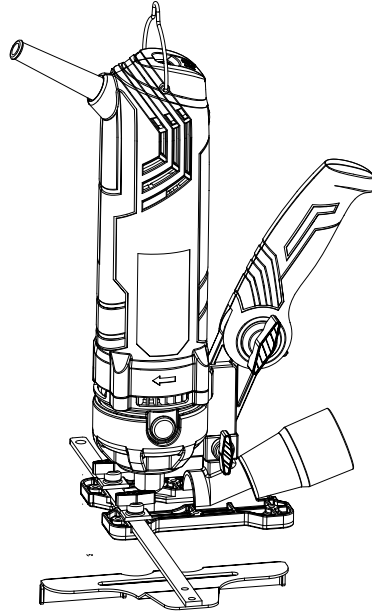
K. Dust extractor adaptor

L. Soft shaft

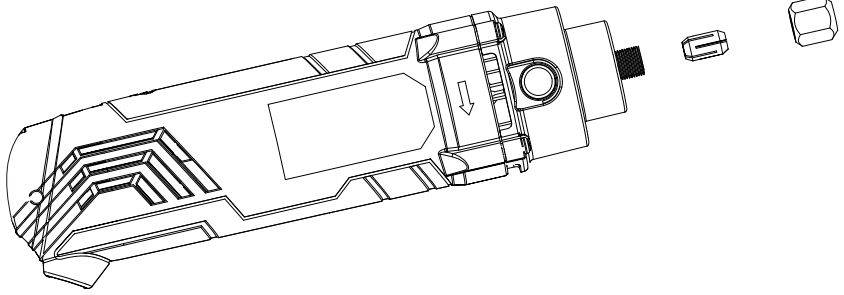
M. Chuck key

N. Chuck

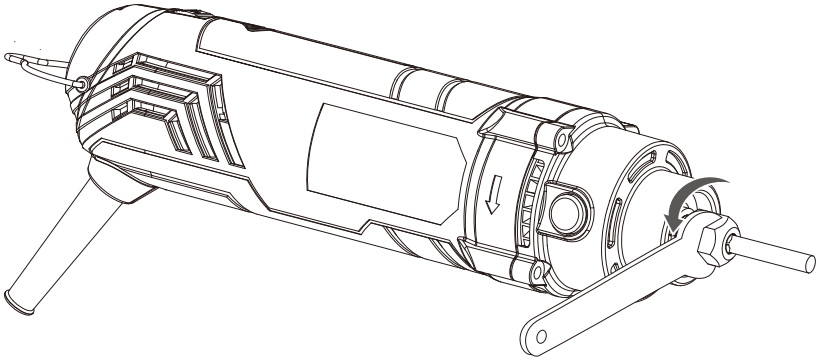
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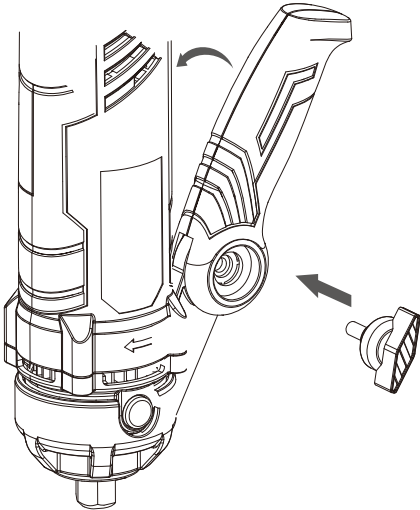
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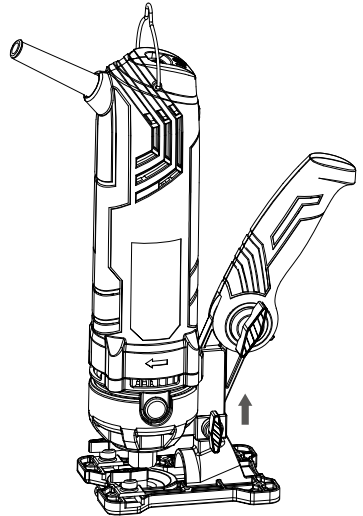
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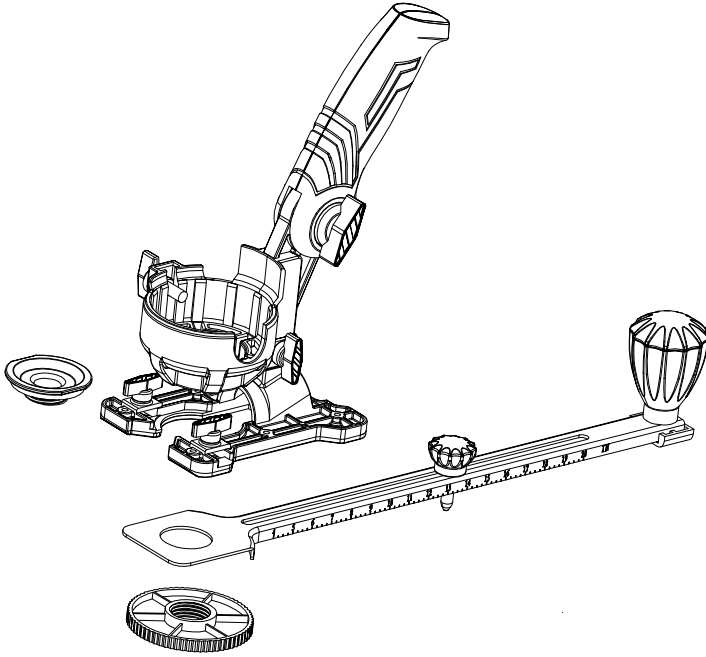
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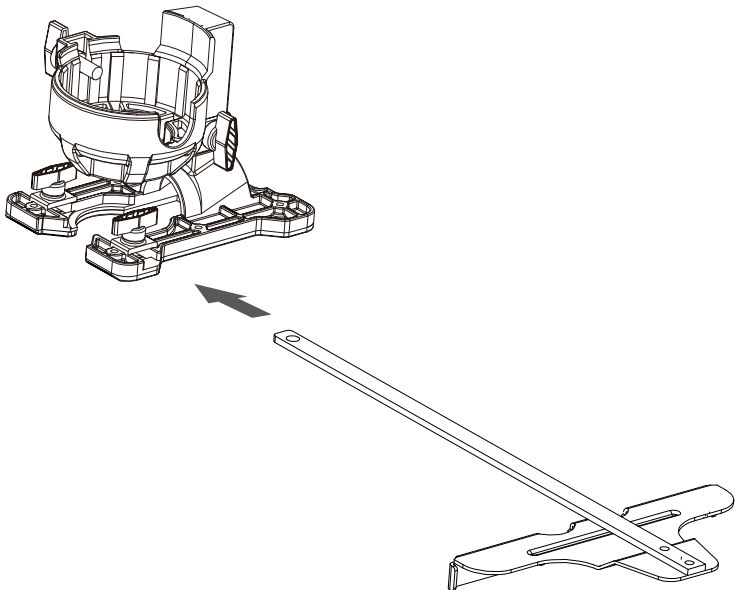
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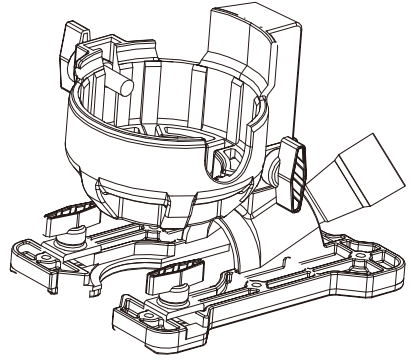
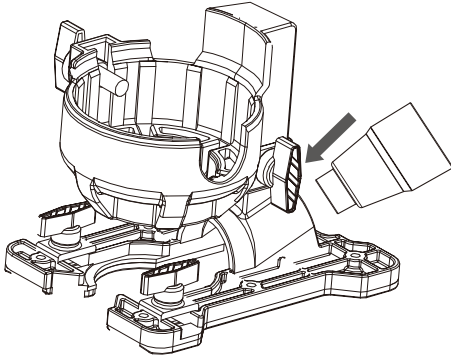
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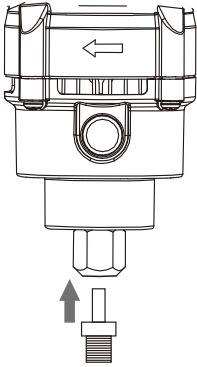
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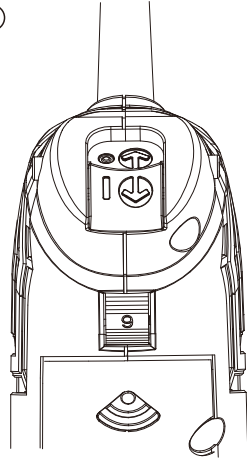
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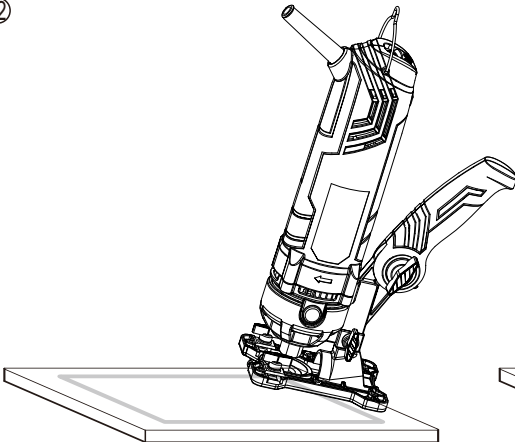
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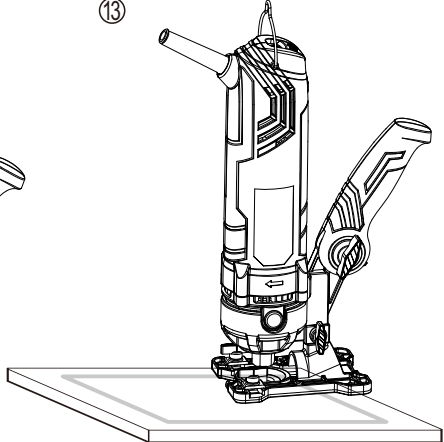
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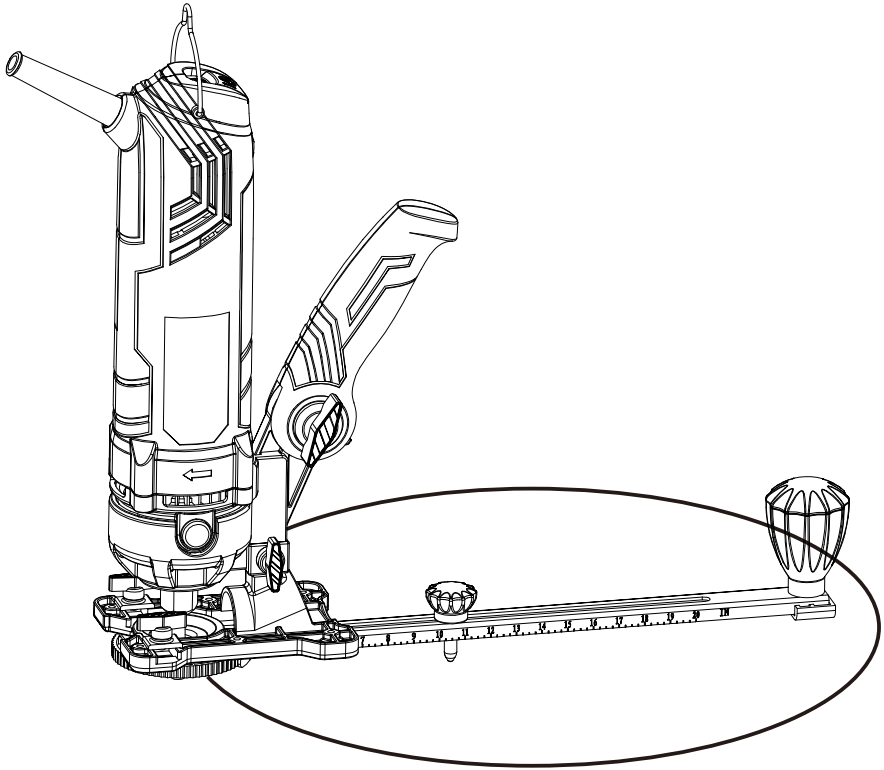
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TECHNICAL SPECIFICATIONS

Model No.	R5103
Power	550W
Voltage	220-240V~, 110-120V~, 50/60Hz
No Load Speed	5000-25000/min
Weight	2.3kg
Protection class	II □

1. Explanation of Symbols



WARNING. Read the instructions to reduce the risk of physical injury



Warning



Protection Class



Eye Protection Required



Hearing Protection Required



Dust and mist must be worn



Waste electronic equipment should not be disposed of with household waste. Consult with local authorities or your distributor to obtain information on the organization responsible for collection.

2. SAFETY

GENERAL SAFETY INSTRUCTIONS



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.

2.1 WORK AREA SAFETY

- >Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- >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.

2.2 Electrical Safety

Follow the instructions below to prevent electrical discharge when using Multi-otary tool.

Recommendation: electricity must always be supplied to the tool through a residual current device (RCD) with a nominal residual current of no more than 30mA.

- >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.
- >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.
- >Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- >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.
- >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.
- >If operating a power tool in a damp location is unavoidable, use an earth leakage circuit breaker. Use of an earth leakage circuit breaker reduces the risk of electric shock. Check walls and ceilings to avoid hidden pipes and electrical cables.
- >Check the power cables and plugs before using tool. If you notice any faults, these must be repaired prior to using the tools.
- >Make sure any extension cables you use are in good condition. Do not use extension cables that extend for more than 25 metres, as this may damage the tool.

2.3 PERSONAL SAFETY

Follow the instructions below to ensure your personal safety when using Multi-etary tool.

- >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.
- >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.
- >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.

- >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.
- >Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- >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.
- >Keep your hands away from the work area.

2.4 Dust Safety

Using tool to sand, saw, grind, drill and perform other construction-related activities wmt certain materials can produce dust Duet may contain chemical substances that could cause cancer, birth defects and other medical problems.

Some examples of these chemical substances are:

- >Lead in lead-based paints.
- >Crystalline silica and asbestos from bricks, cement and other masonry products.
- >Arsenic, boron and chrome from chemically treated wood.

Follow the instructions below to ensure your personal safety regarding dust when using Multi otary tool.

- >Always work in a well-ventilated area.
- >Wear approved safety equipment, such as a dust mask designed to filter microscopic particles.
- >Use the tool dust extractor, which has an approved filter system to help prevent the dust from dispersing in the air.
- >Avoid long periods of exposure to dust when sanding,sawing,grinding,drilling and performing other construction-related activities.
- >Wear protective clothing and wash exposed areas with soap and water.
- >Avoid allowing dust to enter your mouth and eyes and settle on exposed skin. This can lead to the absorption of toxic chemical substances.
- >Keep dust particles away from your face and body.

2.5 Safe Use of Power Tools

Follow the instructions below when using Multi otary tool.

- >Do not use the power tool if you cannot switch it on or off using the switch.
A tool that cannot be switched on or off using the switch constitutes a hazard and must be repaired by an authorized technician. .
- >Unplug the tool from the power supply before making any adjustments, changing the accessories or putting it away . These measures will reduce the risk of the tool being switched on by accident.
- >Keep power tools out of reach of children. Do not allow anyone to use Multi otary tool if they are not familiar with its use or have not read these instructions.
- >Keep power tools well maintained. If your Multi otary tool is missing any parts or any of its pans are damaged. They must be replaced before you can use it.
- >Keep any cutting tools sharp and clean. It cutting tools are well maintained and have sharp edges.They are less likely to become stuck and are easier to control.
- >Only allow audrorized technicrane to repair your Multi otary tool.
- >Use a suitable fastening system to affix and support the piece you are working on and provide e stable platonn.Holding the piece with your hand or against your body will cause it to become unstable and may cause you to lose control.
- >Only use accessories that are recommended for use with Multi otary tool.
- >Never use Multi otary tool in the presence of volatile or flammable substances, or use volatile substances to clean it.

3.Assembly How to Change the Chuck(Image 3)

The multi rotary tool cutting bits are attached using the chuck and chuck nut.

There are three chuck sizes, corresponding to the bits that are to be attached:

- The $\Phi 6.35\text{mm}$ chuck holds the $\Phi 6.35\text{mm}$ bit for cutting drywall/plasterboard, the small woodcarving bits and other accessories.
- The $\Phi 3.2\text{mm}$ chuck holds the $\Phi 3.2\text{mm}$ cutting bits.
- The $\Phi 4.76\text{mm}$ chuck holds the $\Phi 4.76\text{mm}$ cutting bits.

Follow the steps below to change the chuck on your multi rotary tool.

- 1.Remove the bit from multi rotary tool (if one is attached). To do this, see the section
- 2.Twist the chuck nut anti-clockwise and re-move it from the spindle.
- 3.Remove the chuck from the spindle and insert the new chuck.

Note: the chuck are symmetrically shaped.and can be inserted onto the spindle from either end.

4 .Return the chuck nut to its position and tighten it gently by hand.

Note:tightening the chuck nut when there is no bit in the chuck will make the diameter of the chuck opening smaller,which will then make it more difficult to attach the bit. If you store mutli rotary tool without a bit attached, make sure the chuck nut is left loose.

How to Attach Cutting bits (Image 4)

WARNING!



The cutting and woodcarving bits are extremely sharp.Handle them with care.

- 1.Remove the plastic covering from the cutting bit (if it has any).
- 2.Press the spindle lock button.Twist the chuck nut until you hear a click to indicate the spindle lock button is in the correct position. This will stop the spindle from turning.
- 3.Press the spindle lock button and use the Φ 16mm chuck key to turn the chuck nut anti-clockwise. Give the chuck nut several turns in order to loosen it.
- 4.If there is a bit already in the chuck,remove it.
- 5.Insert the new bit all the way into the chuck. Then pull it out by around 1-3mm in or-der to leave a small amount of air between the spindle and the bit, This will help prevent the bit from overheating.

Note: if the shaft of the bit you are inserting is a different size to the one you have just removed, you will need to attach the correct chuck, To do this, see the section How to Change Chucks.

- 6.Make sure the bit's flutes (spirals) are fully visi-ble outside the chuck. If you tighten the chuck around the flutes, you could break the bit and injure yourself.
- 7.When the bit is correctly positioned inside the chuck, press the spindle lock button, Turn the chuck nut clockwise by hand, making it as tight as you can.
- 8.Use the Φ 16 mm chuck key to tighten the chuck nut firmly.It is important that you hold your multi rotary using the control handle, as the tool moves when cutting and could otherwise pull away or stray over to the left. To pre-vent this from happening, hold the tool with both hands. This will afford you greater control and cutting precision.

The control handle is adjustable, so you can change its po-sition to suit the project you are working on.Place the control handle:

- In the horizontal position to use multi rotary tool like a normal back-and-forth saw
- In the vertical position or at an angle to use multi rotary tool for cutting freehand
- In the reverse position, if this will provide a more comforta-ble and practical grip for the task at hand.

Follow the steps below to adjust the control handle.(Image 5)

- 1.Loosen the control handle lock screw until you are able to move the handle up and down.
- 2.Move the control handle into the desired position.
- 3.Tighten the control handle lock screw.

How to Adjust the Depth Gauge

The cutting bit must always protrude from the base of the depth gauge by 4mm plus the thickness of the material to be cut.

For example: if you are going to cut a piece of plasterboard that is 10 mm thick, the cutting bit must protrude 14 mm beneath the base of the depth gauge. In other words, once you begin cutting, there will be 4 mm of cutting bit between the plasterboard and the base of the depth gauge.

Follow the steps below to adjust the depth gauge.(Image 6)

- 1.Loosen the depth gauge lock screw.slide the base of the depth gauge up or down to reach the desired depth.
- 2.Tighten the depth gauge lock screw firmly.
- 3.Check the depth of the bit before starting to cut. Make sure the bit and the chuck are firmly tightened.

How to Attach the Circular Cutter (Image 7)

Follow the steps below to attach the circular cutter.

- 1.Unscrew the internal mounting disc from the external mounting disc .
- 2.Place the internal mounting disc onto the base of the control handle .
- 3.Position the mounting hole in the circular cutting guide (I.4) over the threaded part of the internal mounting disc .

Note: make sure the pivot is pointing downwards.

- 4.Attach the external mounting disc to the internal mounting disc. Tighten them by hand. Note: make sure the protruding section of the external mounting disc passes through the mounting hole and is fastened firmly in place. Only tighten it by hand.Do not over-tighten.
- 5.Loosen the pivot lock screw and slide it to adjust the radius of the circle, then tighten it again.
- 6.Insert the appropriate cutting bit into the chuck and tighten it. To do this, see the section How to attach cutting bits.

Note: check you have adjusted the radius of the circle correctly by measuring the distance from the pivot to the outside of the bit.

7. Adjust the depth gauge, To do this, see the section How to Adjust the Depth Gauge.

How to Attach the Guide Stop (Image 8)

Follow the steps below to attach the guide stop.

1. Loosen the lock screws on the adjustable guide stop. There are two of them, one on each side of the base.
2. Insert the adjustable guide stop into the base.
3. Adjust the depth of the guide stop and tighten the lock screws again.

How to Attach the Dust Extractor Connector (Image 9)

Follow the steps below to attach the dust extractor accessory.

1. Insert the dust extractor connector into the collar on the base, as shown in the illustration.
2. Insert your vacuum cleaner hose into the connector.

Note: if the size of your hose's nozzle does not match that of the connector, use a piece of garden hose as an adaptor.

How to attach soft shaft (Image 10)


Follow the steps below to attach the soft shaft .

1. Switch off your multi rotary tool and unplug it from the power supply.
2. If it has a bit attached, remove it.
3. Make sure the $\Phi 6.35$ mm chuck is on the spindle. To do this, see the section How to Change Chucks.
4. Insert the rear section of the soft shaft into the chuck.
5. When the rear section of the multi rotary tool is correctly positioned inside the chuck , press the spindle lock button. Turn the chuck nut clockwise by hand, making it as tight as you can.
6. Use the $\Phi 16$ mm chuck key to tighten the chuck nut firmly, but take care NOT to apply too much force.

4. INSTRUCTIONS FOR USE

How to Switch multi rotary tool On and off (Image 11)

Follow the steps below to switch your multi rotary tool on and off. m of cutting bit between the plasterboard and the base of the depth gauge.


1.  **IMPORTANT:** Make sure the switch is in the “off” position before plugging the tool into the electricity supply.
2. The NO/OFF switch is located on the upper section of your multi rotary tool. To switch the tool on or off, do the following:
 - To switch it on, press the switch outwards.
 - To switch it off, press the switch inwards.

Note: multi rotary tool has a gradual start-up switch for greater safety and control.

How to Practise Cutting

Practising cutting will help prevent expensive and frustrating mistakes. Before starting work on your first project with multi rotary tool, practise cutting on a piece of the same material you are going to use for the project, follow the steps below to practise cutting with your multi rotary tool.

1. Draw a pattern similar to that of your project on a piece of material.
2. Insert the cutting bit into the chuck.
To do this, see the section How to Attach Cutting Bits.
3. Adjust the depth gauge. To do this, see the section How to Adjust the Depth Gauge.
4. Hold your multi rotary tool firmly in both hands. Position the edge of the cutting guide base above the workpiece at a 45-degree angle. (Image 12)
5. Note: Do not allow the bit to touch the material until the switch is in the “On” Position and your multi rotary tool has reached its top speed.
6. Switch on your multi rotary tool.

 **WARNING!** Make sure you are holding your multi rotary tool firmly in both hands before switching it on.

7. When the motor is running, slowly move your multi rotary tool into an upright position and allow the bit to move downwards while cutting into the material.
8. When the bit has penetrated the material fully, gently move the tool in a clockwise direction. Use slow and constant pressure as you cut and let multi rotary tool do the work. (Image 13)

Note: always cut in a clockwise direction, except when cutting drywall/plasterboard.

9. Switch off multi rotary tool when you have finished cutting. Wait until the tool has stopped completely, then remove it from the workpiece.

How to cut plug socket Openings in Drywall/Plasterboard

Follow the steps below in order to cut openings for plug sockets in drywall/plasterboard using multi rotary tool.

DANGER!

- **Do NOT make cuts around openings or installations that contain live cables, or in walls that may have cables behind them.**
- **Make sure the circuit breakers have been switched off or the fuses have been removed in order to disconnect the electrical circuit for the area you are working on.**

1. Before installing drywall/plasterboard:

- Insert all the cables into the back boxes.

Keep them as far back as possible in order to avoid cutting them when making the opening with multi rotary tool.

- Mark the centre of the plug socket in the side of the sheet of drywall/plasterboard that is facing you.

2. Insert the cutting bit.

3. Adjust the depth of the cutting bit so that it will protrude by 4 mm plus the thickness of the drywall/plasterboard.

To do this, see the section How to Adjust the Depth Gauge.

4. Hold your multi rotary tool firmly in both hands and switch it on.

To do so, see the section How to Switch multi rotary tool On and off.

5. Cut into the drywall/plasterboard at the point marking the centre of the plug socket.

6. Gently move the bit towards the right until you feel and hear it touch the inner edge of the back box.

7. Follow the inner edge of the box and move your multi rotary tool upwards.

Maintain a gentle pressure on the edge of the box. When you feel the bit reach the top right-hand corner, move the tool towards the left.

8. Maintain a gentle pressure on the edge of the box and follow the edge in an anti-clockwise direction until you have cut out the opening.

9. When you have finished cutting, switch off the tool and wait until it has stopped completely before removing it from the workpiece.

How to Use the Circular Cutter

Follow the steps below to cut circles using the circular cutter on your multi rotary tool.

1. Mark the centre of the circle you are going to cut and make a Φ 4.76mm guide hole for the centre guide pivot.

2. Adjust the cutting bit so that it protrudes by 4 mm plus the thickness of the workpiece.

To do this, see the section How to Adjust the Depth Gauge.

3. Loosen the pivot lock screw and slide it to adjust the radius of the circle then tighten it again. Note: check you have adjusted the radius of the circle correctly by measuring the distance from the pivot to the outside of the bit.
- See the section How to Attach the Circular Cutter.
4. position the edge of the control handle base above the workpiece at a 45-degree angle.
5. Switch on your multi rotary tool.
6. When the motor is running, slowly move your multi rotary tool into an upright position and allow the bit to move downwards while cutting into the material.
- Make sure the pivot enters and remains inside the guide hole.
7. When the bit has penetrated the material fully, gently move the tool in a clockwise direction. Use slow and constant pressure as you cut and let multi rotary tool do the work. (Image 14)
8. Cut out the circle, keeping multi rotary tool in an upright position and the control handle flat above the workpiece, Carefully rotate the handle of the circular cutter and multi rotary tool around the centre guide pivot.
9. When you have finished cutting, switch off the tool and wait until it has stopped completely before removing it from the workpiece.

5. Tips and Troubleshooting Cutting Tips

- > Always use two hands on multi rotary tool for greater control and to prevent the bit from coming off the workpiece.
- > The thickness of the material should never exceed the length of the cutting grooves.
- > When cutting a hole in a vertical surface, always start and end the cutting process at the top of the hole, never the bottom. This will ensure that the piece of material you have cut out will fall away from the rotating bit.
- > Always cut in a clockwise direction, except when cutting drywall/plasterboard. If you cut in an anticlockwise direction you may lose control of multi rotary tool.
- > You can use the 1/4" wood and multipurpose bit to cut wood up to 20 mm thick. Do not force the tool while cutting. This will help extend the life of the bits.
- > You can use the smaller wood and multipurpose bits for thinner materials, up to 8 mm thick.
- > Because the bit rotates, you will notice a slight pull to the left when cutting. Natural deviations in the structure of the wood may cause the bit to stray off course. This effect will be exacerbated if you apply too much force.
- > When you are using multi rotary tool to etch glass, place the object on a sack of wheat in order to obtain a stable work platform.

>If multi rotary tool overheats, it may stop automatically to avoid damaging the motor. Allow it to cool for 30 minutes before starting work again.

6.Cleaning and Storage

>Frequently remove dust and accumulated debris using a soft, DRY brush.

>Do not use flammable substances or liquids to clean Turbothrust Saw, as they may damage it, Use a clean cloth to remove dirt,oil, grease,etc.

>Use eye protection when removing dust from Turbothrust Saw with an air jet cleaner. Keep the vents clean and un-obstructed to allow maximum airflow around the tool.

>Always store Turbothrust Saw in a safe, dry place. Keep the vents and motor controls clean and free of dust an debris.

7.Maintenance and Repair

>Only use identical spare parts when performing main-tenance work. Using other parts may cause a hazard or damage the tool.

>Do NOT attempt modify multi rotary tool or make your own accessories. Altering or modifying multi rotary tool or using it in an unintended manner will be conside-red improper use of the tool, and could cause hazardous situations leading to serious injury. Improper use will also invalidate the warranty.

>All the bearings in your multi rotary tool have been gi-ven sufficient high-quality lubricant to keep them lubricated throughout the working life of the tool (provided it is used under normal conditions).Therefore, it is not necessary to apply any additional lubrication.

>Unplug the power cable before performing any mainte-nance work, making any adjustments or doing any repairs to multi rotary tool or its accessories.

>Multi rotary tool does not contain any parts that can be repaired by the user.

>If the power cable is damaged, ask the manufacturer or authorized service provider to replace it immediately.

>Occasionally you may observe sparks through the vents.

This is normal and will not cause any damage to the tool or to you.

WARNING DISPOSAL OF MATERIALS



A symbol of a crossed-out wheeled bin means you should find out about and follow local regulations about disposing of this kind of product.

Do not dispose of this product as you would other household waste.

Dispose of this device in accordance with the corresponding local regulations.

Electrical and electronic devices contain hazardous substances that can have harmful effects on the environment and/or human health and should be recycled properly.