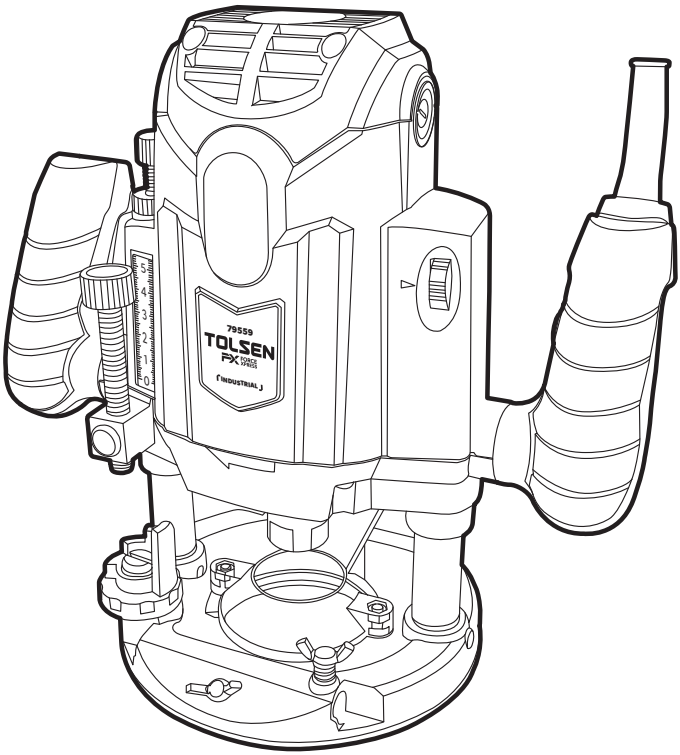
TOLSEN FX FORCE XPRESS

79749
ELECTRIC ROUTER

INSTRUCTION MANUAL **110-120V~60Hz 15A**



SAVE THIS MANUAL !
You will need this manual for safety instructions, operating procedures and warranty.
Put it and the original sales receipt in a safe dry place for future reference.

SAFETY INSTRUCTIONS

WARNING

Remove the plug from the socket before carrying out any adjustment, servicing or maintenance. Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury. Make sure the voltage corresponds to the type label on the unit. Packing materials are no toys! Children must not play with plastic bags! Danger of suffocation! The power tool noise output may exceed 85dB(A) at the workplace. In this instance, wear ear protection.

General safety

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 batteryoperated (cordless) power tool.

1. Work area safety

a) Keep work area clean and well lit. Cluttered or dark areas invite accidents.
b) Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
c) Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

2. Electrical safety

a) Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
b) Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
c) Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
d) Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges and moving parts. Damaged or entangled cords increase the risk of electric shock.
e) When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.
f) If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply. Use of an RCD reduces the risk of electric shock.

3. Personal safety

a) Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
b) Use personal protective equipment. Always wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
c) Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
d) Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury. e) Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
f) Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.
g) If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.

4. Power tool use and care

a) Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.

b) Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.

c) Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.

d) Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.

e) Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.

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

g) Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.

5. Service

a) Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

Safety instruction for router

- Hold the power tool by insulated gipping surfaces only, because the cutter may contact its own cord. Cutting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- Use clamps or another practical way to secure and support the workpiece to a stable platform. Holding the work by your hand or against the body leaves it unstable and may lead to loss of control.
- If the replacement of the supply cord is necessary, this has to be done by the manufacturer or agent in order to avoid a safety hazard.
- It is strongly recommended that the tool always be supplied via a residual current device with a rated residual current of 30mA or less.

a) Use safety equipment including safety goggles or shield, ear protection, dust mask and protective clothing including safety gloves

b) Cloths, cord, string etc should never be left around the work area

c) Ensure the mains supply voltage is the same as the tool rating plate voltage

d) Ensure any cable extensions used with this tool are in a safe electrical condition, and have the correct ampere rating for the tool

e) Completely unwind cable drum extensions to avoid potential overheating

f) Use appropriate detectors to determine if utility cables or pipes are below the surface of the work area. Consult utility companies for assistance if necessary. Contact with electric cables can lead to electric shock and fire. Damaging a gas pipe can lead to explosion. Contact with water lines can lead to major property damage

g) Ensure embedded objects such as nails and screws have been removed from the workpiece before commencing operation

h) Handle router bits with care as they can be extremely sharp

i) Before use, check the bit carefully for signs of damage or cracks. Replace damaged or cracked bits immediately

j) Ensure router cutters/bits are sharp and maintained correctly. Dull cutting edges can lead to uncontrolled situations including stalling, increased heat and possible injury

k) ALWAYS use both handles and maintain a firm grip on the router before proceeding with any work

l) Keep handles and gripping surfaces dry, clean and free of oil and grease to ensure the tool can be securely held in use

m) Before using the tool to make a cut, switch on and let it run for a while. Vibration could indicate an improperly installed bit

n) Take notice of the direction of rotation of the bit and the direction of feed

o) Keep your hands away from the routing area and router bit cutter. Hold the auxiliary handle or an insulated gripping surface with your second hand
p) NEVER start the router while the cutter is touching the workpiece
q) Ensure the plunge spring is always fitted when using hand - held
r) Ensure the cutter has completely stopped before plunging to the collet lock position
s) The maximum speed of the router bit/cutter must be at least as high as the maximum speed of the power tool
t) Parts of the router bits may become hot during operation. Do not handle immediately after use to avoid risk of burns
u) Do not allow parts to come into contact with combustible materials
v) The shank size of the router cutter/bit must be matched to the exact same size collet fitted to the router. Incorrectly fitted router cutter/bits will rotate irregularly and have increased vibration that could lead to loss of control
w) DO NOT press the spindle lock button, or attempt to switch the tool into bit change mode while the router is operating
x) Keep pressure constant while cutting into the workpiece, allowing the router bit cutter to dictate the speed of cut. DO NOT force the tool and overload the motor
y) Ensure rating labels and safety warnings on the tool remain clear to read and are replaced if marked or damaged
z) When operating the router, be prepared for the router bit cutter stalling in the workpiece and causing loss of control. Always ensure the router is firmly held and the on/off switch is immediately released in such circumstances

- After switching on the router, check the router bit is rotating evenly (not 'wobbling') and there is no additional vibration due to the router bit being incorrectly fitted. Operating the router with an incorrectly fitted router bit can lead to loss of control and severe injury
- EXTREME care must be taken when using cutters with a diameter greater than 2" (50mm). Use very slow feed rates and/or multiple shallow cuts to avoid overloading the motor
- ALWAYS switch off and wait until the bit has come to a complete standstill before removing the machine from the workpiece
- Disconnect from the power supply before carrying out any adjustment, servicing or maintenance

WARNING: Dust generated by using power tools can be toxic. Some materials may be chemically treated or coated and be a toxic hazard. Some natural and composite materials may contain toxic chemicals. Some older paints may contain lead and other chemicals. Avoid prolonged exposure to dust generated from operating a router.**DO NOT** allow dust to get onto skin or eyes and do not allow the dust to enter your mouth to prevent absorption of harmful chemicals. Where possible, work in a well - ventilated area. Use a suitable dust mask and dust extraction system where possible. Where there is a higher frequency of exposure, it is more critical that all safety precautions are followed and a higher level of personal protection is used.

SPECIFICATIONS

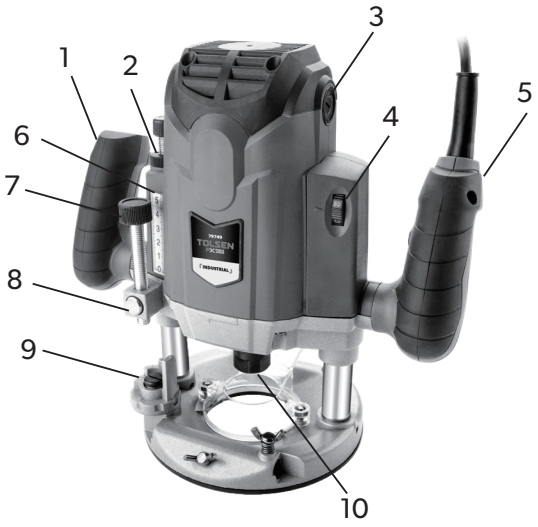
Electrical Rating	110-120V~60Hz
Rated Current	15A
Max. Power	2100W
Motor No Load Speed	n_0: 12000-23000/min
Max. Chuck Diameter	1/2" (12mm)
Plunge stroke	0-50mm

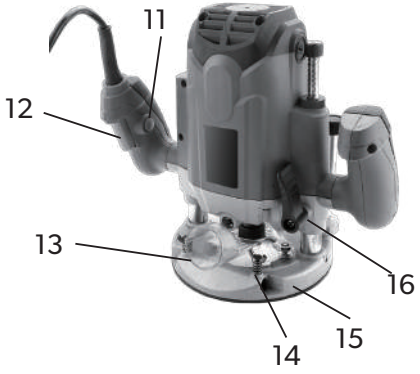
Explanation of the symbols

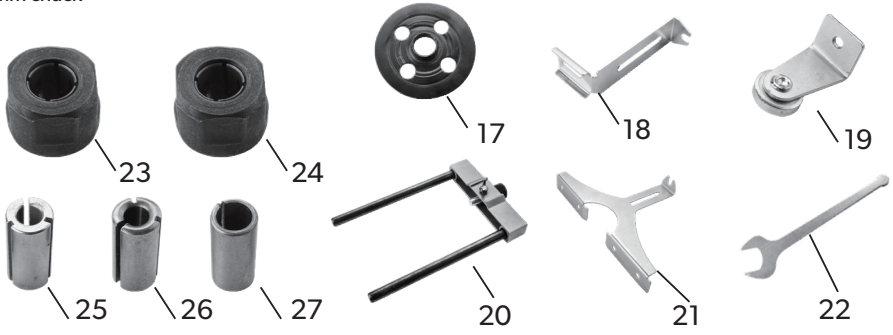
	Double insulated for additional protection.
	Read the instruction manual before using.
	Wear safety glasses, hearing protection and dust mask.
	Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or retailer for recycling advice.
	Safety alert. Please only use the accessories supported by the manufacture.

FUNCTIONS

1. Left Handle
2. Adjusting knob
3. Brush Access Cover
4. Variable Speed Dial
5. Right Handle
6. Depth Scale
7. Stopper pole
8. Fast-feed button
9. Stopper block
10. Collet Nut
11. Safety Button
12. ON/OFF Switch
13. Dust Extraction Port
14. Guide Rod Locking Knob
15. Base Plate
16. Plunge Lock Lever
17. Gauge guide
18. Guide bracket
19. Trim guide
20. Parallel locating seat
21. Arallel guide
22. Wrench
23. 12mm chuck
24. 1/2" chuck
25. 1/4" chuck
26. 6mm chuck
27. 8mm chuck



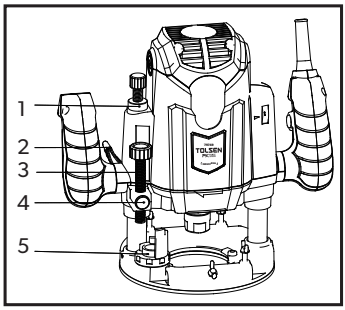




FUNCTIONAL DESCRIPTION

CAUTION: Always be sure that the tool is switched off and unplugged before adjusting or checking function on the tool.

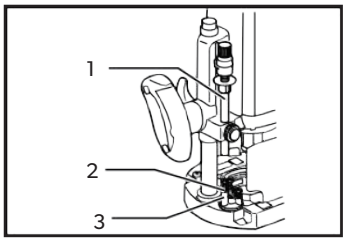
Adjusting the depth of cut



1. Adjusting knob
2. Lock lever
3. Stopper pole
4. Fast-feed button
5. Stopper block

Place the tool on a flat surface. Loosen the lock lever and lower the tool body until the bit just touches the flat surface. Tighten the lock lever to lock the tool body.
Turn the stopper pole setting nut counterclockwise. Lower the stopper pole until it makes contact with the adjusting bolt. Align the depth pointer with the "0" graduation. The depth of cut is indicated on the scale by the depth pointer.
While pressing the fast-feed button, raise the stopper pole until the desired depth of cut is obtained.
Minute depth adjustments can be obtained by turning the adjusting knob (1 mm (3/64") per turn).
By turning the stopper pole setting nut clockwise, you can fasten the stopper pole firmly.
Now, your predetermined depth of cut can be obtained by loosening the lock lever and then lowering the tool body until the stopper pole makes contact with the adjusting hex bolt of the stopper block.

Stopper block



1.Stopper pole
2.Adjusting bolt
3.Stopper block

The stopper block has three adjusting hex bolts which raise or lower 0.8 mm (1/32") per turn. You can easily obtain three different depths of cut using these adjusting hex bolts without readjusting the stopper pole.
Adjust the lowest hex bolt to obtain the deepest depth of cut, following the method of "Adjusting depth of cut".
Adjust the two remaining hex bolts to obtain shallower depths of cut. The differences in height of these hex bolts are equal to the differences in depths of cut.
To adjust the hex bolts, turn the hex bolts with a screwdriver or wrench. The stopper block is also convenient for making three passes with progressively deeper bit settings when cutting deep grooves.

CAUTION

Since excessive cutting may cause overload of the motor or difficulty in controlling the tool, the depth of cut should not be more than 15 mm (19/32") at a pass when cutting grooves with an 8 mm (5/16") diameter bit. When cutting grooves with a 20 mm (13/16") diameter bit, the depth of cut should not be more than 5 mm (3/16") at a pass.
For extra-deep grooving operations, make two or three passes with progressively deeper bit settings.

Switch action

CAUTION

Before plugging in the tool, always check to see that the switch trigger actuates properly and returns to the "OFF" position when released
Make sure that the shaft lock is released before the switch is turned on.
To prevent the switch trigger from being accidentally pulled, a lock button is provided.
To start the tool, depress the lock button and pull the switch trigger. Release the switch trigger to stop.
For continuous operation, pull the switch trigger and then depress the lock button further. To stop the tool, pull the switch trigger so that the lock button returns automatically. Then release the switch trigger.
After releasing the switch trigger, the lock-off function works to prevent the switch trigger from being pulled.

CAUTION

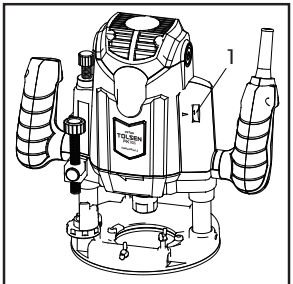
Hold the tool firmly when turning off the tool, to overcome the reaction.

Electronic function
Constant speed control

Possible to get fine finish, because the rotating speed is kept constantly even under the loaded condition.
Additionally, when the load on the tool exceeds admissible levels, power to the motor is reduced to protect the motor from overheating. When the load returns to admissible levels, the tool will operate as normal.

Soft start feature

Soft start because of suppressed starting shock.



Speed adjusting dial

CAUTION

Before plugging in the tool, always check to see that the switch trigger actuates properly and returns to the "OFF" position when released
The tool speed can be changed by turning the speed adjusting dial to a given number setting from 1 to 6
Higher speed is obtained when the dial is turned in the direction of number 6.
And lower speed is obtained when it is turned in the direction of number 1.

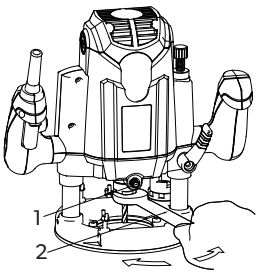
CAUTION

If the tool is operated continuously at low speeds for a long time, the motor will get overloaded, resulting in tool malfunction.
The speed adjusting dial can be turned only as far as 6 and back to 1. Do not force it past 6 or 1, or the speed adjusting function may no longer work.

ASSEMBLY

CAUTION

Always be sure that the tool is switched off and unplugged before carrying out any work on the tool



Installing or removing the bit

1. Shaft lock
2. Wrench

CAUTION

Install the bit securely. Always use only the wrench provided with the tool. A loose or overtightened bit can be dangerous.

Use always a collet which is suitable for the shank diameter of the bit.

Do not tighten the collet nut without inserting a bit or install small shank bits without using a collet sleeve. Either can lead to breakage of the collet cone.

Use only router bits of which the maximum speed, as indicated on the bit, does exceed the maximum speed of the router.

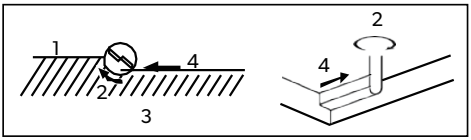
Insert the bit all the way into the collet cone. Press the shaft lock to keep the shaft stationary and use the wrench to tighten the collet nut securely. When using router bits with smaller shank diameter, first insert the appropriate collet sleeve into the collet cone, then install the bit as described above.

To remove the bit, follow the installation procedure in reverse.

OPERATION

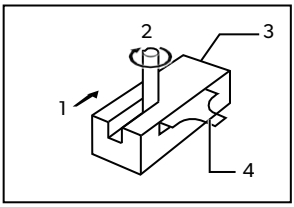
CAUTION

Before operation, always make sure that the tool body automatically rises to the upper limit and the bit does not protrude from the tool base when the lock lever is loosened.
Before operation, always make sure that the chip deflector is installed properly.
Always use both grips and firmly hold the tool by both grips during operations.
Set the tool base on the workpiece to be cut without the bit making any contact. Then turn the tool on and wait until the bit attains full speed. Lower the tool body and move the tool forward over the workpiece surface, keeping the tool base flush and advancing smoothly until the cutting is complete.
When doing edge cutting, the workpiece surface should be on the left side of the bit in the feed direction.



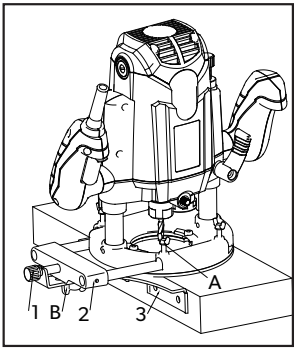
1.Workpiece
2.Bit revolving direction
3.View from the top of the tool
4.Feed direction

NOTE:
Moving the tool forward too fast may cause a poor quality of cut, or damage to the bit or motor. Moving the tool forward too slowly may burn and mar the cut. The proper feed rate will depend on the bit size, the kind of workpiece and depth of cut. Before beginning the cut on the actual workpiece, it is advisable to make a sample cut on a piece of scrap lumber. This will show exactly how the cut will look as well as enable you to check dimensions.
When using the straight guide or the trimmer guide, be sure to install it on the right side in the feed direction. This will help to keep it flush with the side of the workpiece.



1.Feed direction
2.Bit revolving direction
3.Workpiece
4.Straight guide

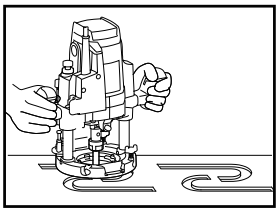
Straight guide



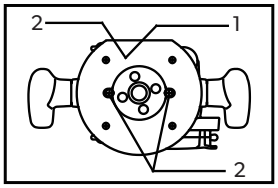
1. Straight guide
2. Fine adjusting screw
3. Clamping screw (B)
4. Clamping screw (A)
5. Guide holder

The straight guide is effectively used for straight cuts when chamfering or grooving.
Install the straight guide on the guide holder with the clamping screw (B). Insert the guide holder into the holes in the tool base and tighten the clamping screw (A). To adjust the distance between the bit and the straight guide, loosen the clamping screw (B) and turn the fine adjusting screw (1.5 mm or about 1/16" per turn). At the desired distance, tighten the clamping screw (B) to secure the straight guide in place.

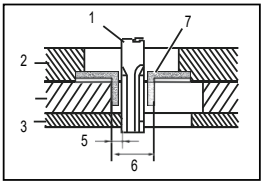
Templet guide (optional accessory)



The templet guide provides a sleeve through which the bit passes, allowing use of the tool with templet patterns. To install the templet guide, pull the lock plate lever and insert the templet guide.



1. Template guide
2. Lock plate



1.Bit
2.Base
3. Templet
4. Workpiece
5. Distance (X)
6. Outside diameter of the templet guide
7. Templet guide

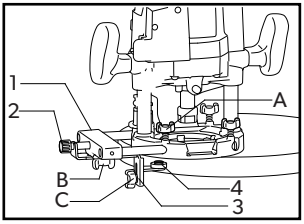
When cutting, move the tool with the guide roller riding the side of the workpiece

NOTE:

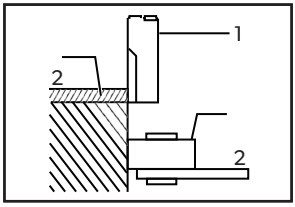
•The workpiece will be cut a slightly different size from the templet. Allow for the distance (X) between the bit and the outside of the templet guide. The distance (X) can be calculated by using the following equation:
Distance (X) = (outside diameter of the templet guide - bit diameter) / 2

Trimmer guide (optional accessory)

Trimming, curved cuts in veneers for furniture and the like can be done easily with the trimmer guide. The guide roller rides the curve and assures a fine cut.
Install the trimmer guide on the guide holder with the clamping screw (B). Insert the guide holder into the holes in the tool base and tighten the clamping screw (A). To adjust the distance between the bit and the trimmer guide, loosen the clamping screw (B) and turn the fine adjusting screw (1.5 mm or 1/16" per turn). When adjusting the guide roller up or down, loosen the clamping screw (C). After adjusting, tighten all the clamping screws securely.



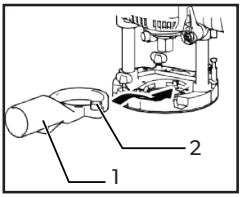
1.Guide holder
2. Adjusting screw
3. Clamping screw (B)
4. Clamping screw (C)
5. Trimmer guide
6. Clamping screw (A)



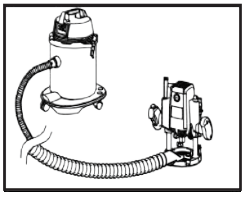
1.Bit
2.Guide roller
3.Workpiece

When cutting, move the tool with the guide roller riding the side of the workpiece

Dust nozzle set (Accessory)



1. Dust nozzle
2. Clamping screw



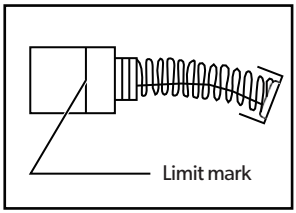
Use the dust nozzle for dust extraction. Install the dust nozzle on the tool base using the thumb screw so that protrusion on the dust nozzle fit to the notch in the tool base.
Then connect a vacuum cleaner to the dust nozzle.

MAINTENANCE

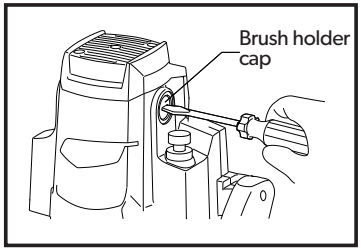
CAUTION

Always be sure that the tool is switched off and unplugged before attempting to perform inspection or maintenance.

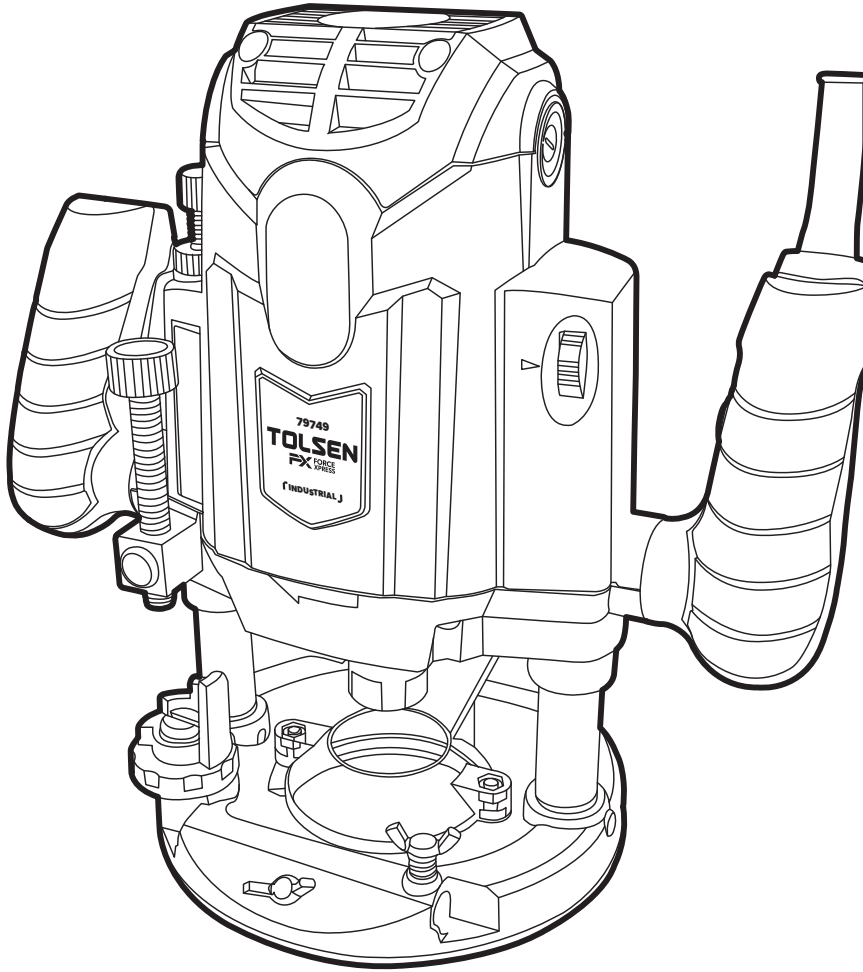
Replacing carbon brush



Remove and check the carbon brushes regularly. Replace when they wear down to the limit mark. Keep the carbon brushes clean and free to slip in the holders. Both carbon brushes should be replaced at the same time. Use only identical carbon brushes.
Use a screwdriver to remove the brush holder caps. Take out the worn carbon brushes, insert the new ones and secure the brush holder caps.



After replacing brushes, plug in the tool and break in brushes by running tool with no load or about 10 minutes. Then check the tool while running and electric brake operation when releasing the switch trigger. If electric brake is not working well, ask your local service center for repair.



SUZHOU TOLSEN
TOOLS CO.,LTD.

www.tolsentools.com

MADE IN CHINA

22
PAP

TolsenWorld

SCAN TO VISIT
PRODUCT LINK