

AGP[®]

WET TILE SAW

TS9



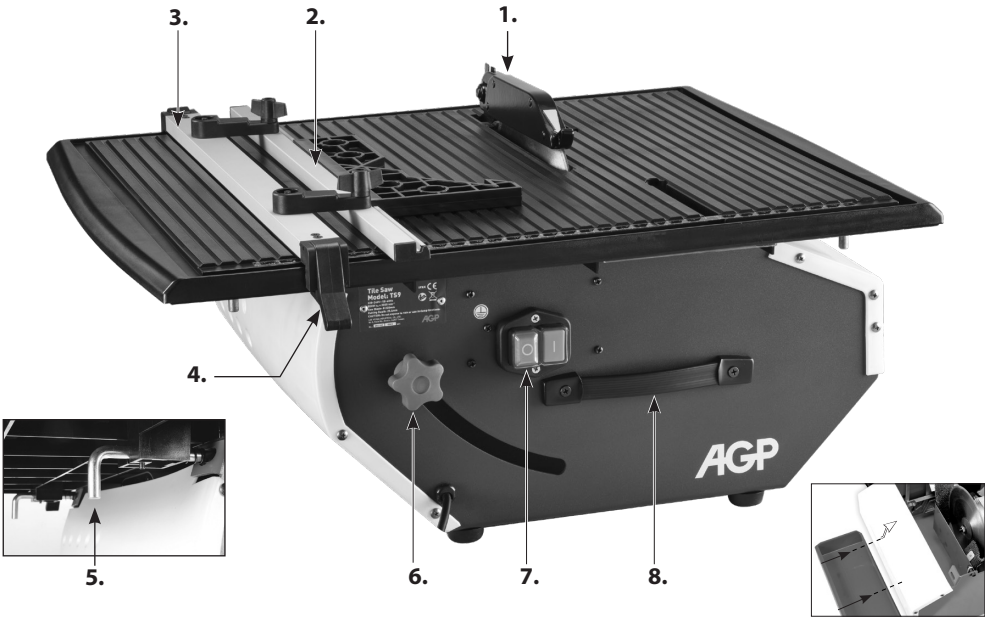
Instruction Manual

CECB



SPECIFICATIONS

Motor Type	Single Phase AC Induction
Power Output	0.8 kW (1.1 HP)
Voltage	See machine nameplate
No Load Speed	3000 min ⁻¹ (50Hz), 3600 min ⁻¹ (60Hz)
Max. Blade Diameter	230 mm (9")
Blade Bore	25.4 mm (1")
Bevel Capability	0-45 deg.
Max. Cutting Depth-straight	48 mm (1-7/8")
Max. Cutting Depth- at 45 deg.	37 mm (1-7/16")
Rip Cut - Left	305 mm (12")
Rip Cut - Left at 45° Bevel	295 mm (11-39/64")
Rip Cut - Right	147 mm (5-25/32")
Diagonal (Miter) Cut - Left	285 mm (11-7/32")
Diagonal Cut - Left at 45° Bevel	275 mm (10-13/16")
Front of Blade to Table Edge	200 mm (7-7/8")
Protection	IP44
Weight	14.7 kg (32.4 lb)



1.5L water tray

1. Blade guard

2. Ruler

3. Parallel Cutting Guide

4. Clip

5. Table Locking Pin

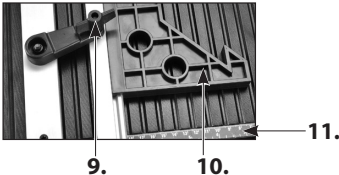
6. Bevel Angle Knob
7. Switch

8. Carry handle

9. Locking Wing Nut

10. Angle Guide Plate

11. Scale



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.

1) WORK AREA SAFETY

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

2) ELECTRICAL SAFETY

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

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.

Symbols used in this manual

V.....volts

A.....amperes

Hz.....hertz

W.....watt

~.....alternating current

n_0no load speed

min^{-1}revolutions or reciprocation per minute



..... DANGER! Risk of Getting Cut by Sawblade Operate Carefully



.....Warning of general danger



.....read these instructions



.....Always wear eye protection



.....Always wear a dust mask.



.....Always wear hearing protection



.....Wear safety-approved hard hat



.....DANGER! Keep hands away from cutting area and the blade.

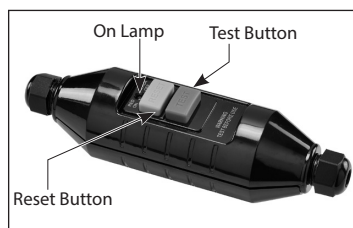


...do not dispose of electric tools,
accessories and packaging together with household waste material

ELECTRICAL CONNECTION

The network voltage must conform to the voltage indicated on the tool name plate. Under no circumstances should the tool be used when the power supply cable is damaged. A damaged cable must be replaced immediately by an authorized Customer Service Center. Do not try to repair the damaged cable yourself. The use of damaged power cables can lead to an electric shock.

WARNING: Always use the Portable Residual Current Device (PRCD) also known as a Ground Fault Circuit Interrupter (GFCI) to reduce the risk of shock hazards. Always position the PRCD as close as possible to the power source. Test and reset the PRCD device before each use. Press the “Test” button to test. Press the “Reset” button to energize the circuit to the machine.



WARNING: Always connect the plug into the wall socket with a drip loop. If the cable leads downward directly into the wall socket, any water on the cable could run into the socket, causing a hazard.

ADDITIONAL SAFETY RULES

WARNING: Never operate a damaged machine. Always tag a damaged machine and take it out of service until repairs can be made.

WARNING: Do not attempt to groove or rabbet (rebate) with this machine. This machine is for cutting only.

The arbor size of wheels and flanges must properly fit the spindle of the power tool. Wheels and flanges with arbor holes that do not match the mounting hardware of the power tool will run out of balance, vibrate excessively and may cause loss of control.

- Replace the table when worn.
- Wear suitable protective clothing and equipment; including but not limited to: eye protection, hearing protection and anti-slip footwear
- Wear gloves when handling saw blades, but do not operate the machine wearing gloves
- Never use guards for transporting or handling the machine. Transport and carry the machine only by the carry handle.
- Cover the upper part of the sawblade at all times while transporting
- Support long workpieces to minimise the risk of blade pinching and kickback. Large panels tend to sag under their own weight. Supports must be placed under the panel on both sides, near the line of cut and near the edge of the panel.

INTRODUCTION

This machine is designed for water cooled cutting of tile materials. The motor is single phase induction type. It has an integrated partial immersion water cooling system as required for diamond cutting. It must only be used with a diamond blade. It is intended for cutting tiles made of natural stone, ceramic porcelain, and similar materials. All other uses are prohibited.

LIST OF CONTENTS

1. Tile Saw
2. M19 combination wrench
3. M8 combination wrench
4. Parallel cutting guide
5. Angle guide plate
6. Diamond blade

ASSEMBLY

Mount the blade. (See below "Mounting the Blade")

DIAMOND BLADES

Allowed types of blades

This machine may use continuous rim diamond blades only.

NOTE: Segmented diamond blades may not be used on this machine.

- Only diamond blades of 230mm (9") may be used.
- Blade bore must be 25.4mm (1")
- Blade thickness must be at least 1.5mm and no greater than 2.2mm

ABOUT DIAMOND BLADES

Diamond blades consist of a steel core with diamond segments added to its periphery.

Diamond blades are available for different hardnesses of materials; natural stone, ceramic, porcelain, glass, etc.

Diamond blades are designed to be used wet only.

Water will prevent the blade from overheating, greatly reduce the amount of harmful dust created by cutting, remove the slurry from the cut, and extend the life of the blade. Diamond is the hardest substance known, but even diamond is unable to withstand extreme overheating combined with the cutting forces involved. Dry cutting of very hard materials such as porcelain will lead to rapid tool wear and failure.

The wearing part of a diamond blade operates on a principle of controlled erosion. The blade does not cut the material, rather it grinds it away. The bond matrix holding the diamonds is continually worn away by abrasion with the workpiece, exposing the harder diamonds to stand proud from the bond matrix. A blade with good diamond exposure is a sharp blade. Blades made for cutting harder materials will have a softer bond, allowing the diamonds project more aggressively (but will not last as long). Blades made for cutting softer, abrasive materials will have a harder bond, allowing them to resist the abrasiveness of the material and to last longer. The other factor is the grit size of the diamonds themselves: very hard materials tend to require a finer grit size, while coarser grits will cut faster.

This erosion process causes heat and particles, which require water to cool and rinse free. Without adequate water, the blade would overheat and be destroyed.

NOTE: Never use a wet-type diamond blade without water. It will overheat and be destroyed.

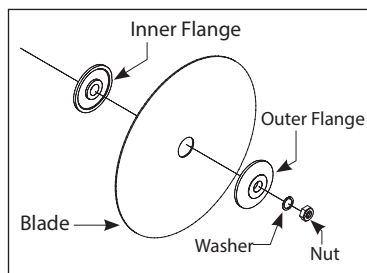
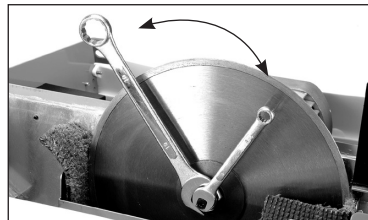
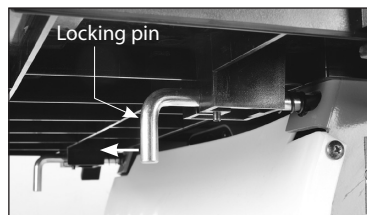
Always mount the blade with the arrow matching the direction of rotation of the machine (A direction arrow is marked on the blade guard).

WARNING: Never use blades for cutting a material other than the material they were intended for.

MOUNTING THE BLADE

First make sure that the machine is unplugged.

1. Remove the blade guard by loosening the butterfly screw and lift away.
2. Reach under the edge of the table and pull each of the 4 locking pins against the spring and rotate 90 degrees, this will allow the table to be lifted away.
3. Release the shroud by pulling up slightly and away.
4. Use the 8mm combination wrench to keep the arbor from turning and loosen the arbor nut with the 19mm combination wrench (it is a standard right-hand thread, so turn anticlockwise to loosen).
5. Remove the nut, spring washer and outer blade flange
6. When mounting the blade ensure that the direction arrow marked on the motor plate of the machine matches direction arrow on the blade. Also ensure that the blade bore matches the inner blade flange.
7. The protruding edge of the inner flange should be facing the blade. Then mount the blade to the inner flange and add the outer flange. Add the arbor nut and tighten to 15-25 Nm. The rest of the replacement is the opposite of removal



The inner blade flanges is specific to the blade arbor bore diameter of 25.4mm (1") Check the inner flange to ensure that the size matches the bore of the blade which you intend to use.

Inspect the blade before use. It must not be cracked, warped or damaged in any way that would cause a hazard in operation. Loose diamond segments can be ejected at high speed, causing possible injury. Always check that the diamond segments are not under cut. If the diamond segments are thinner or nearly thinner than the blade core, the kerf will be too tight fitting and could easily lead to jamming or kickback.

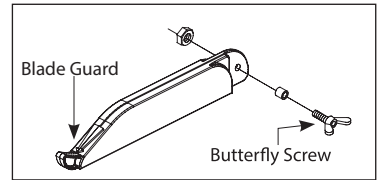
Ensure that the flanges and blade bore are clean and undamaged and that everything fits properly. The flanges may not be used if they are warped, the surface is uneven, burred or if they are dirty. The arbor nut and arbor threads must be undamaged. Inspect the blades for segment damage, arbor hole damage or any other damage which could cause hazardous operation.

WARNING: Do not attempt to mount a blade which does not match the mounting hardware. It will lead to eccentric running and vibration which will be uncontrollable.

ADJUSTING THE BLADE GUARD

The blade guard must ALWAYS be used whenever cutting to avoid a hazard. Adjust the guard by loosening

the butterfly screw and adjust so that it is parallel and as close as possible to the surface of the tile to be cut. Then retighten the screw. Readjust whenever cutting a different thickness tile. Keeping the blade guard as close as possible is safer and prevents excessive loss of water.



WATER TRAY

Water is a basic requirement for diamond sawing. The water serves as a coolant to avoid the working surface of the diamond segments from overheating.

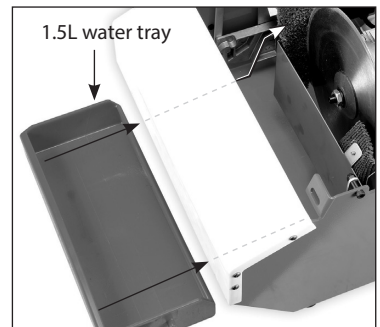
WARNING: Always use a PRCD (GFCI) when operating with water

The water feed system is built into the machine. The water is provided by the water tray which is mounted below the blade. Thus the blade is partially immersed in water. The operator must fill the tray with water (1.5L) and maintain the water level in the tray at the maximum for best results. The machine is designed so that most of the water will recirculate, minimizing water loss during operation. The tray has an overflow level hole to avoid overfilling the tray. When tilting the motor to make bevel cuts, the tray mounting system allows the water tray to remain horizontal.

To dismount and mount the water tray

The tray is suspended by pins on its sides which engage in slots in the tray brackets. To dismount, reach in from the right side of the machine and lift up slightly on the tray and pull out. (The pins will follow the tracks in the tray brackets)

To mount the tray: lay the tray flat on the bottom of the machine's frame and slide in until the tray touches the bracket. Then lift the tray evenly straight upward and allow the tracks in the brackets to guide all four of the pins until it fully engages in place. (If only two of the pins engage, the tray will be tilted)



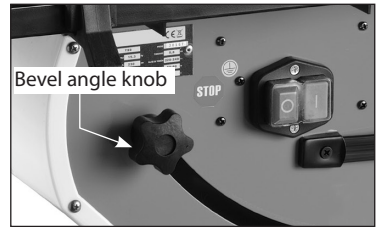
PARALLEL CUTTING GUIDE

The parallel cutting guide makes it easy to make straight cuts. The guide clips in place on the table in whatever position is needed. Further, the guide has a ruler on double links which allows the operator to fine tune the adjustment while maintaining parallelism with the blade. The table features a scale which can be referred to when setting the ruler. Ensure that the wing nuts on the ruler are both tight before cutting.

The angular guide plate allows the operator to hold the tiles in a number of different positions for controlled diagonal cutting. The guide plate engages with the ruler and smoothly slides along it. (See page2.)

BEVEL CUTS

The motor assembly may be tilted up to 45 degrees for performing bevel cuts. To adjust the bevel angle, loosen the two hand knobs on the right and left sides of the machine, adjust to the desired angle, and then retighten the knobs.



OPERATION

Before cutting

- Ensure that the operating environment is free or clutter
- Fill the water tray
- Refer to the scale on the table and set the cutting guide to the desired width of cut
- Adjust the blade guard to be as close as possible to the workpiece
- Ensure that all bystanders are at a safe distance.
- Ensure that the equipment is grounded.
- Ensure that all safety equipment is in place.

CAUTION: Never cut dry and do not allow the water tray to run dry. Blade life will be severely shortened.

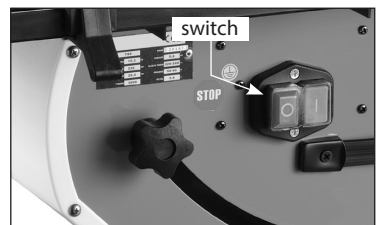
CUTTING TECHNIQUE

- Start the machine by pressing the green ON button
- Allow the motor to reach full speed, then hold the tile firmly, and steadily feed the tile to the blade
- Do not allow the machine to bog down. Limit your feed pressure to keep the blade spinning at high speed.
- Do not push too hard at the end of the cut.
- Keep your hands away from the blade

STOPPING

Press the red OFF button to stop the machine. After the motor is shut off, the blade will continue spinning for a time.

WARNING: Keep hands and objects away from the blade while it is still spinning.



MAINTENANCE AND CLEANING

The slurry created by the wet cutting process must be rinsed off. Remove the table, water tray, blade guard and shroud, then rinse them clean with a hose.

Wipe other areas clean.

Daily Maintenance

- Keep the machine clean
- Check to ensure that the power supply cable is in good condition.
- Ensure all screws, nuts and fasteners are tight.
- Check the condition of all safety equipment such as the blade guard
- Check the blade for damage.

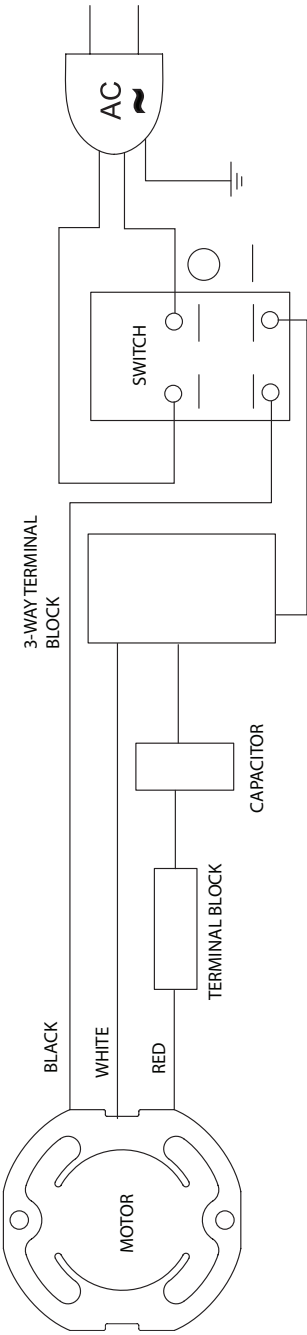
Model	Power Level	Pressure Level	Vibration Level
	Lwa(dB)ISO 3744	Lpa(dB) ISO4871	G en NF ENV 25349
0.75KW240V	76	63	0.09
0.75KW115V	74	65	0.07

If the replacement of the power supply cord is necessary, this has to be done by the manufacturer or their agent in order to avoid a safety hazard.

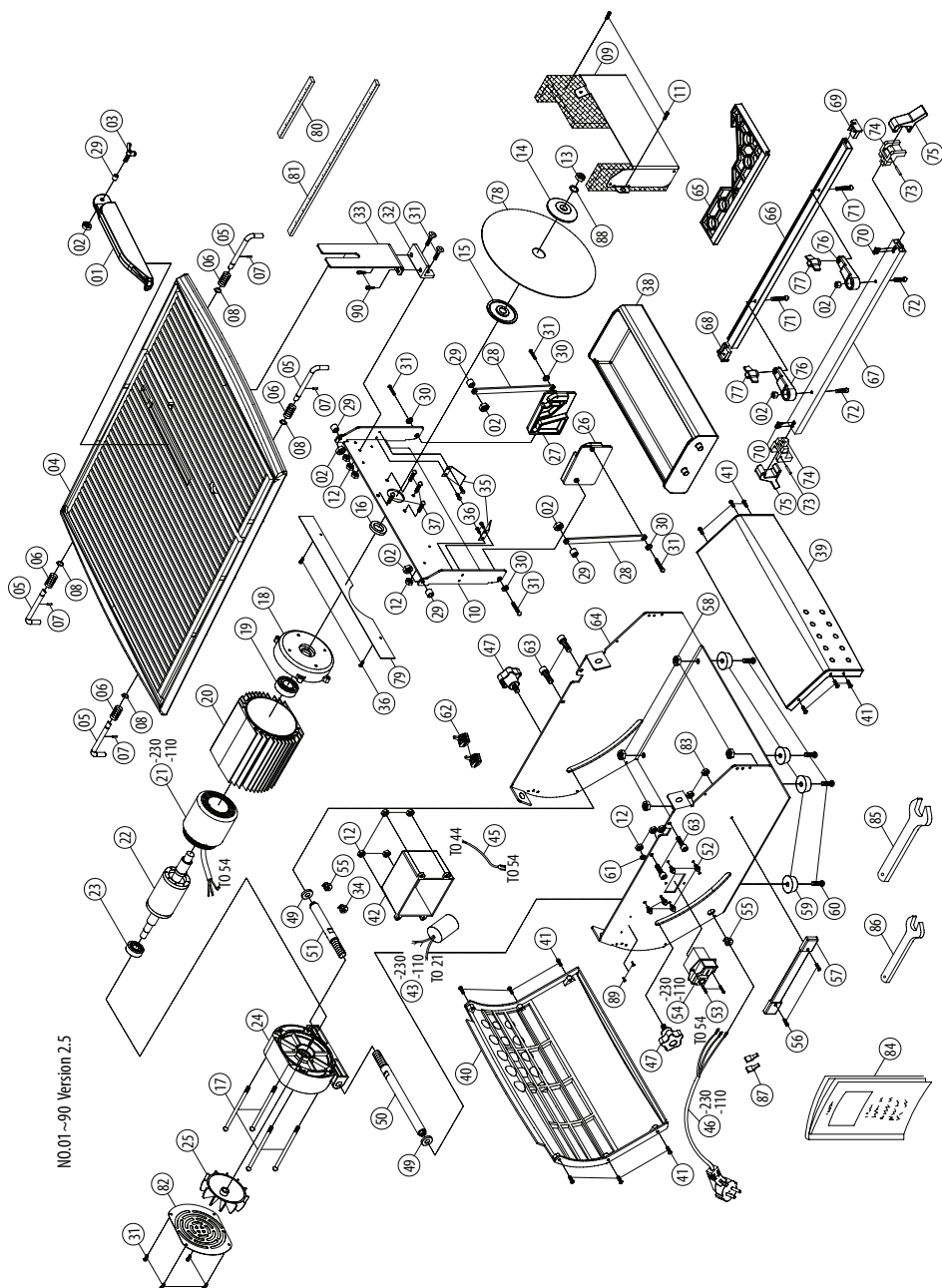
WARNING: All repairs must be entrusted to an authorized service center. Incorrectly performed repairs could lead to injury or death.

Do not throw electric power tools into the household waste!

In accordance with the European Directive 2002/96/EG on Waste Electrical and Electronic Equipment and transposition into national law, used electric power tools must be collected separately and recycled in an environmentally friendly manner.



EXPLODED VIEW



NO.01~90 Version 2.5

PARTS LIST

NO.	Parts Name	Q'TY	NO.	Parts Name	Q'TY
1	INNER SAFETY COVER	1	46	POWER SUPPLY CABLE	1
2	NYLOCK NUT (M6xP1.0)	7	47	THUMB SCREW (M8x12)	2
3	THUMB SCREW (M6x20)	1	48	N/A	-
4	TABLE	1	49	FLAT WASHER (Ø13xØ24x2.5)	2
5	PLUNGE LOCK LEVER	4	50	REAR STRUT (LONG)	1
6	SPRING (Ø1xØ8.1x5Tx25.7L)	4	51	REAR STRUT (SHORT)	1
7	ROLL PIN (Ø3.5x10)	4	52	PANHEAD MACHINE SCREW (M4x16xP0.7)	5
8	EXTERNAL CIRCLIP (S-8)	4	53	FLAT HEAD MACHINE SCREW (M4x20xP0.7)	2
9	SHROUD	1	54	MOTOR SWITCH (110V/220V)	1
10	MOTOR PLATE	1	55	CABLE GLAND (SB6R-3)(6P-4)	2
11	SOCKET CAP SCREW (M4x12xP0.7)	2	56	FLAT HEAD MACHINE SCREW (M5x15xP0.8)	2
12	HEX NUT (M4xP0.7)	11	57	STRAP COVER	1
13	HEX NUT (M12xP1.75)	1	58	NYLOCK NUT (M8xP1.25)	4
14	OUTER FLANGE	1	59	RUBBER FOOT	4
15	INNER FLANGE (Ø25.4)	1	60	PANHEAD MACHINE SCREW (M8x16xP1.25)	4
16	OIL SEAL (Ø20xØ32x5)	1	61	EXTERNAL STAR WASHER (M5)	1
17	PANHEAD MACHINE SCREW (M5x150xP0.8)	4	62	THREE WIRE PUSH IN CONNECTOR	2
18	MOTOR FRONT COVER	1	63	SOCKET CAP SCREW (M6x25xP1.0)	4
19	BALL BEARING (6004)	1	64	BASE	1
20	MOTOR HOUSING	1	65	ANGULAR GUIDE PLATE	1
21	STATOR (110V/220v)	1	66	RULER	1
22	ARMATURE	1	67	RULER CLAMP BAR	1
23	BALL BEARING (6201)	1	68	RULER END PLUG-LEFT	1
24	MOTOR REAR COVER	1	69	RULER END PLUG-RIGHT	1
25	FAN (BLACK)	1	70	FLAT HEAD TAPPING SCREW (M4x8)	4
26	TRAY BRACKET-LEFT	1	71	PANHEAD MACHINE SCREW (M6x30xP1.0)	2
27	TRAY BRACKET-RIGHT	1	72	PANHEAD MACHINE SCREW (M6x20xP1.0)	2
28	SUPPORT ROD	2	73	ROLL PIN (Ø3x30)	2
29	SCREW SWIVEL (Ø6.2xØ10x10)	5	74	CLAMP BODY	2
30	FLAT WASHER (Ø4xØ10x1)	4	75	CLAMP HOOK	2
31	PANHEAD MACHINE SCREW (M4x8xP0.7)	12	76	PARALLEL BRACKET	2
32	SEPARATOR BRACKET	1	77	WING NUT	2
33	SEPARATOR	1	78	SAW BLADE (9"-230MM x 1.6T x 5.0W x 25.4H)	1
34	CABLE GLAND (SB7R-3)(6P3-4)	1	79	RETAINING PLATE	1
35	SPLASH GUARD	2	80	MITER SCALE	1
36	PANHEAD MACHINE SCREW (M4x6xP0.7)	6	81	MITER SCALE	1
37	PANHEAD MACHINE SCREW (M5x10xP0.8)	4	82	TAIL COVER	1
38	WATER TRAY	1	83	HEX NUT (M5xP0.8)	2
39	FRONT BEVEL BRACKET	1	84	INSTRUCTION MANUAL	1
40	REAR BEVEL BRACKET	1	85	WRENCH (M19)	1
41	TRUSS HEAD TAPPING SCREW (M4x16)	12	86	WRENCH (M8)	1
42	PLASTIC BOX	1	87	SPODE TERMINAL BOOT	2
43	CAPACITOR (110V/220v)	1	88	SPRING WASHER (M12)	1
44	N/A	-	89	RIVET	2
45	WIRE LEAD (1015-16#10CM)	1	90	SOCKET CAP SCREW (M4x6xP0.7)	2

