

# Stone Cutting Circular Saw

## INSTRUCTION MANUAL



For your personal safety, **READ** and **UNDERSTAND** before using.

**SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.**



### **Warning:**

Only tools equipped with over load protection, when motor has been cut off due to over load, always switch on machine with no load for at least 3 minutes to reduce temperature before switch on again to avoid burn out to the motor.

## SPECIFICATIONS

Voltage	(See machine nameplate)
Power	1800W
No Load min <sup>-1</sup>	5800
Arbor	22.23mm (7/8")
Max. Blade Diameter	180mm
Max. Cutting Depth	55mm
Weight	6.7kg (14.74Lbs)

### GENERAL SAFETY RULES

**WARNING! Read and understand all instructions.** Failure to follow all instructions listed below, may result in electric shock, fire and / or serious personal injury. The term "power tool" in all of the warnings listed below refers to your mains-operated (corded) power tool.

### SAVE THESE INSTRUCTIONS

#### Work area safety

**Keep your work area clean and well lit.**

Cluttered benches and dark areas invite accidents.

**Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquid, gases, or dust.** Power tools create sparks which may ignite the dust or fumes.

**Keep bystanders, children, and visitors away while operating a power tool.**

Distractions can cause you to lose control.

#### Electrical Safety

**Grounded tools must be plugged into an outlet properly installed and grounded in**

**accordance with all codes and ordinances. Never remove the grounding prong or modify the plug in any way. Do not use any adaptor plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded.** If the tools should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.

**Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is grounded.

**Don't expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.

**Don't abuse the cord. Never use the cord to carry the tools or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately.** Damaged cords increase the risk of electric shock.

**When operating a power tool outside, use an outdoor extension cord marked "W-A" or "W."** These cords are rated for outdoor use and reduce the risk of electric shock.

## Personal Safety

**Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use tool while 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 safety equipment. Always wear eye protection.** Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.

**Avoid accidental starting. Be sure switch is off before plugging in.** Carrying tools with your finger on the switch or plugging in tools that have the switch on invites accidents.

**Remove adjusting keys or switches before turning the tool on.** A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.

**Do not overreach. Keep a proper footing and balance at all times.** Proper footing and balance enables better control of the 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, jewellery or long hair can be caught in moving parts.

## Tool use and care

**Use clamps or other practical way to secure and support the work piece to a**

**stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.

**Do not force tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.

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

**Disconnect the plug from the power source before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.

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

**Maintain tools with care. Keep cutting tools sharp and clean.** Properly maintained tools, with sharp cutting edges are less likely to bind and are easier to control.

**Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tools operation. If damaged, have the tool serviced before using.** Many accidents are caused by poorly maintained tools.

**Use the power tool, accessories and blades etc., in accordance with these instructions and in the manner intended for the**

**particular type of power tool, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.

### Service

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

**-WARNING- To reduce the risk of injury, user must read instruction manual.**

### Symbols used in this manual

V.....volts  
A.....amperes  
Hz.....hertz  
W.....watt  
~.....alternating current  
 $n_0$ .....no load speed  
 $\text{min}^{-1}$ .....revolutions or reciprocation per minute

### SPECIFIC SAFETY RULES

- 1. Keep hands away from cutting area and blade at all times! Keep your second hand on an auxiliary handle.** If both hands are holding the saw, they cannot be cut by the blade.
- 2. Do not reach underneath the work.**
- 3. Hold tool by insulated gripping surfaces when performing an operation where the cutting tools may contact hidden wiring or its own cord.** Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.
- 4. Always use blades with correct size and shape arbor holes.** Blades that do not match the mounting hardware of the saw will run eccentrically, causing loss of control.
- 5. Never use damaged or incorrect arbor flanges or bolts.** The arbor flanges and bolt were specially designed for your saw, for best performance and safety of operation.
- 6. Maintain a firm grip on the saw and position your body and arm in a way that allows you to resist KICKBACK forces.** KICKBACK forces can be controlled by the operator, if proper precautions are taken.
- 7. Do not use a dull or damaged blade.**
- 8. Use only recommended blades, rated at the machine's maximum rated RPM or higher with correct arbor hole.**
- 9. Tighten blade retaining bolt** and all clamps before operating.
- 10. Check the inside surfaces** of the arbor flanges as well as the sides of the blade for freedom from any foreign matter.

11. **Check the blade** for cracks or other damage before operation. Replace cracked or damaged blade immediately. Carry out a test run without load for at least 30 seconds before use.
12. **Never start the tool** with the workpiece against the blade.
13. **Allow the motor to achieve full speed** before cutting.
14. **Important: After completing the cut**, release power switch and wait for coasting blade to stop completely before putting the saw down
15. **Never operate** the tool in an area with flammable solids, liquids, or gases. Sparks from the commutator/carbon brushes could cause a fire or explosion.
16. **There are certain applications for which this tool was designed.** The manufacturer strongly recommends that this tool NOT be modified and/or used for any application other than for which it was designed. If you have any questions relative to its application DO NOT use the tool until you have written the manufacturer and have been advised.
17. **Only use the machine for cutting in stone, concrete or masonry.**
18. **Use the auxiliary handles supplied with the tool.** Loss of control can cause personal injury.
19. **Use a residual current device (PRCD) (not included) to protect from current surges.**
20. **Keep power supply cord clear from the working range of the machine.** Always lead the cable away behind you.
21. **Immediately switch off the machine if unusual vibrations or if other malfunctions occur.** Check the machine in order to find out the cause.
22. **Only use and store diamond blades according to the Manufacturer's instructions.**
23. **Pay attention to the dimensions of the blades.** The diameter of the center bore must engage the arbor without play. If not use any necessary reduction pieces or adapters (supplied with the blade) to ensure a proper fit.
24. **Take care to avoid hidden electric lines, gas and water pipes.** Check your working area, e.g. with a metal detector before commencing work.
25. **The dust that arises when working with this tool can be harmful to health.** Use a dust absorption system and wear a suitable dust protection mask and remove deposited dust with a vacuum cleaner.

# FUNCTIONAL DESCRIPTION

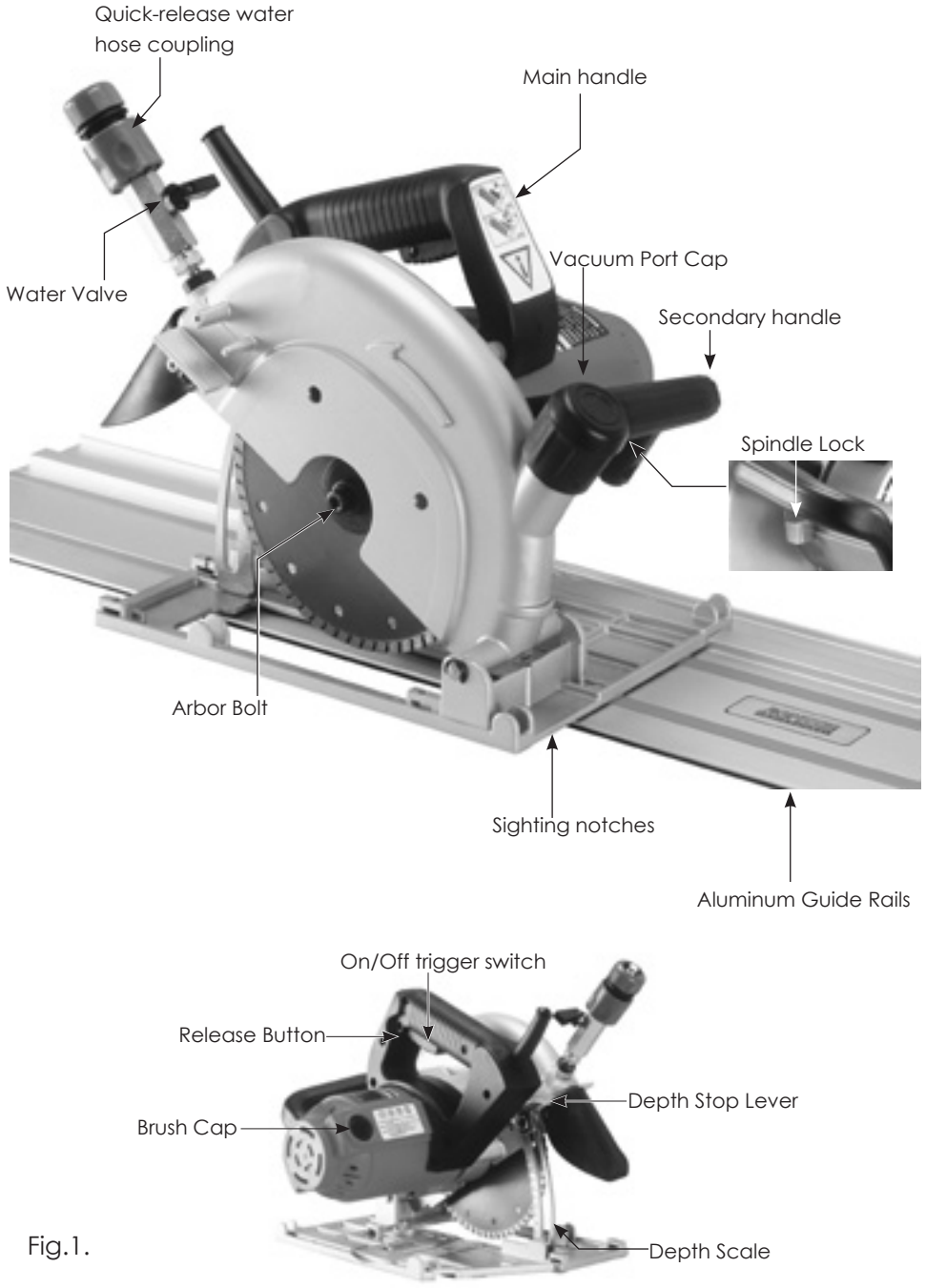


Fig.1.

### **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.

### **Intended use**

This saw is designed exclusively for wet or dry cutting of stone, concrete and masonry. This machine should not be used for cutting other materials. The machine should not be converted or modified, e.g. for any other form of use, other than as specified in these operating instructions. The user shall be liable for damages and accidents due to incorrect use.

### **Extension cable**

If an extension cable is required, it must have a sufficient cross-section so as to prevent an excessive drop in voltage or overheating. An excessive drop in voltage reduces the output and can lead to failure of the motor. The following table shows you the correct cable diameter as a function of the cable length for this machine. Use only U.L. and CSA listed extension cables. Never use two extension cables together. Instead, use one long one.

<b>Total Extension Cord Length (feet)</b>	<b>Cord Size (AWG)</b>
25	16
50	12
100	10
150	8
200	6

### **UNPACKING**

Carefully remove the tool and all loose items from the shipping container. Retain all packing materials until after you have inspected and satisfactorily operated the machine.

**NOTE: An appropriate diamond blade must be mounted to the machine before operating. Refer to the section of this manual: "INSTALLING THE BLADE"**

### **CARTON CONTENTS**

Stone Cutting Circular Saw Machine

\*Vacuum hose connector

\*Parallel guide

\*Quick-release water hose coupling

\*L-hex wrench

**DO NOT OPERATE THIS TOOL UNTIL YOU READ AND UNDERSTAND THE ENTIRE INSTRUCTION MANUAL.**

● **INSTALLING THE DIAMOND BLADE** -ENSURE THAT TOOL IS DISCONNECTED FROM POWER SOURCE.

**To install the blade:**

1. Remove any accumulated debris in the guards and around the arbor.
2. First mount the Inner Flange, then the blade, making sure the direction of rotation arrow of the blade and the arrow on the machine are in the same direction.
3. Mount the Outer Flange, Washer and Arbor Bolt. See Fig.2.

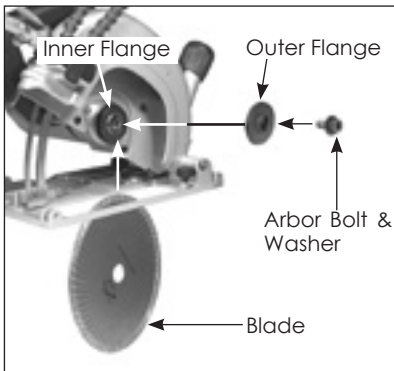


Fig.2

**NOTE: Use blades that have an arbor bore which can fit, and that are rated for the machine's maximum rated speed or higher.**

**REMOVING THE BLADE-DISCONNECT TOOL FROM POWER SOURCE.**

Removal is the opposite of installing the blade.

**TO ADJUST DEPTH OF CUT-** DISCONNECT TOOL FROM POWER SOURCE.

**To adjust the depth of cut:**

Loosen the Depth Stop Lever by pushing it forwards and adjust the depth of cut to the desired amount. Then retighten the Depth Stop Lever. See Fig.3.

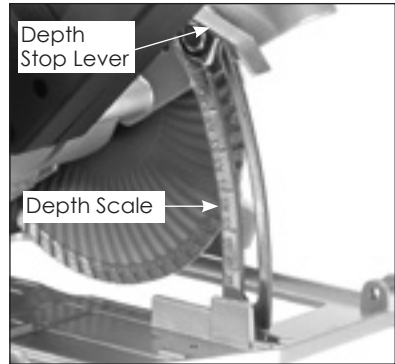


Fig.3

**HOW TO USE THE SIGHTING NOTCH**

To aid in free-hand cutting, sighting notches are located at the front of the base plate. See Fig.4.

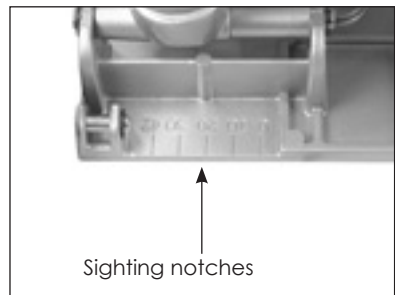


Fig.4



## VACUUM DUST COLLECTION

There is a vacuum port provided on the blade cover to collect dust when operating.

Simply attach the vacuum cleaner hose to the vacuum port. See fig. 5. Keep the Cap in place when not in use.



Fig.5

## WATER FEED SYSTEM

The water feed system allows the machine to cut more effectively. Ensure that a PRCD interrupter unit is always used.

Mount the Quick Release Water Coupling to the water supply hose. Adjust the Water Valve for the desired amount of water flow. See Fig.6.

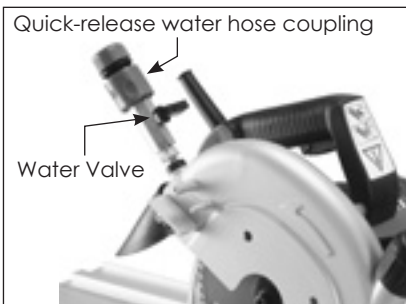


Fig.6

**WARNING: Great care must always be taken to avoid the risk of electrocution whenever using water. Never allow water to contact the electrical parts of the tool. Always use a PRCD Interrupter.**

## PARALLEL GUIDE

The Parallel Guide allows straight cuts to a desired distance from the edge.

To mount, insert the Parallel Guide into the slot in the Base Plate and tighten the Thumb Knobs at the desired position. See fig. 7.

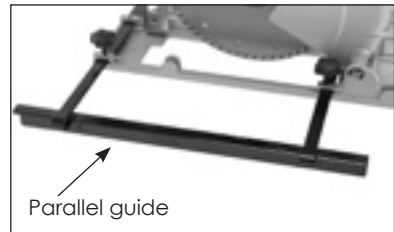


Fig.7

## • STARTING AND STOPPING TOOL

Make sure that the power circuit voltage is the same as that shown on the specification plate of the machine and that switch is "OFF" before connecting the tool to the power circuit

### Switching the machine on and off

Keep the machine steady during switching and during use by holding the main handle and the secondary handle with both hands. See fig. 8.

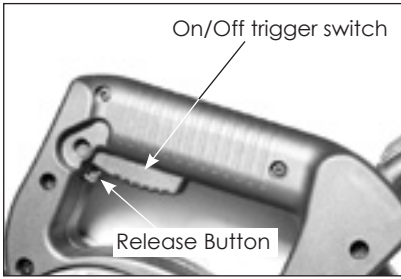


Fig.8

#### To switch on:

This machine is equipped with a "LOCK-OFF" switch. To press the switch, you must first press the release button located at the top of the switch. Then the trigger switch will be free to be pressed to start the machine.

#### To switch off:

Release the trigger switch to stop the machine. After the machine has been switched off, the blade will still rotate for a time, take care that parts of your body do not come into contact with the blade while it is still rotating !

### ELECTRONIC OVERLOAD PROTECTION

If while cutting the machine reaches a load approaching overload level, the electronic overload protection will kick in and shut the saw off. When this happens, release the trigger and return the machine to its topmost position (out of the cut) and wait at least 3 seconds before continuing.

### HOW TO USE THE TOOL

Effective control of this powerful saw

requires **two-handed** operation for maximum protection. Note there is a secondary handle as well as a side handle which has two choices of position. Choose the handle according to the working conditions. Support the work properly and to hold the saw firmly **WITH BOTH HANDS** to prevent loss of control which could cause personal injury. Always hold one of the auxiliary handles with the left hand and the main handle with the right hand for proper hand support of the saw. Protect your eyes from injury with safety glasses or goggles.

### OPERATION

1. Adjust the depth of cut.
2. Draw a cutting line before beginning cutting so it is easy to make straight cuts.
3. Place the machine in position on the workpiece.
4. While the blades are not yet in contact with the workpiece, press the lock button squeeze the trigger and allow the machine to reach full speed.
5. Holding firmly with both hands, slowly advance the machine until it makes contact with the workpiece. Begin moving forward along the line of cut Take care that the base remains firmly on the workpiece.

**CAUTION: Take care not to cut in a curved line. This will likely shatter the diamond blades causing a severe hazard.**

6. When the cut is finished, allow the coasting blade to come to a full stop before setting down.

**NOTE: Only operate the machine forwards relative to itself and never backwards. If you cut backwards there is the danger that the machine might be accelerated out of the cutting groove (recoil) and cause serious injury.**

**CAUTION: Keep the cord away from cutting area to prevent it from becoming entangled in the workpiece.**

Do not force the cut. Let the saw do the cutting at the rate of speed permitted by the type of cut and workpiece.

### SHARPENING DULL DIAMOND BLADES

If a lot of sparks are seen while cutting, this is a sign that the blade is becoming dull. To create better diamond exposure (sharpen), make several cuts in a special sharpening stone for diamond blades or alternately use calcareous sandstone.

## MAINTENANCE

### KEEP TOOL CLEAN

Periodically blow out all air passages with dry compressed air. All plastic parts should be cleaned with a soft damp cloth. NEVER use solvents to clean plastic parts. They could possibly dissolve or otherwise damage the material. Wear safety glasses while using compressed air.

### THE CARBON BRUSHES

The carbon brushes are a normal wearing

part and must be replaced when they reach their wear limit. See fig.9. To replace: simply remove the brush caps (47) and withdraw the old brushes (46). Replace with new brushes (always replace as a pair) ensuring that they align properly and slide freely. Then replace the brush caps. See fig.10.

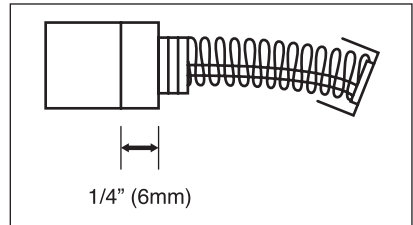


Fig.9

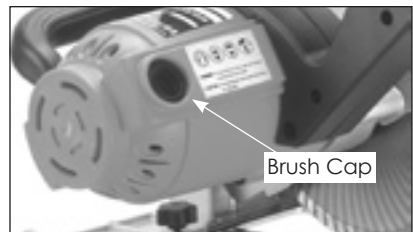
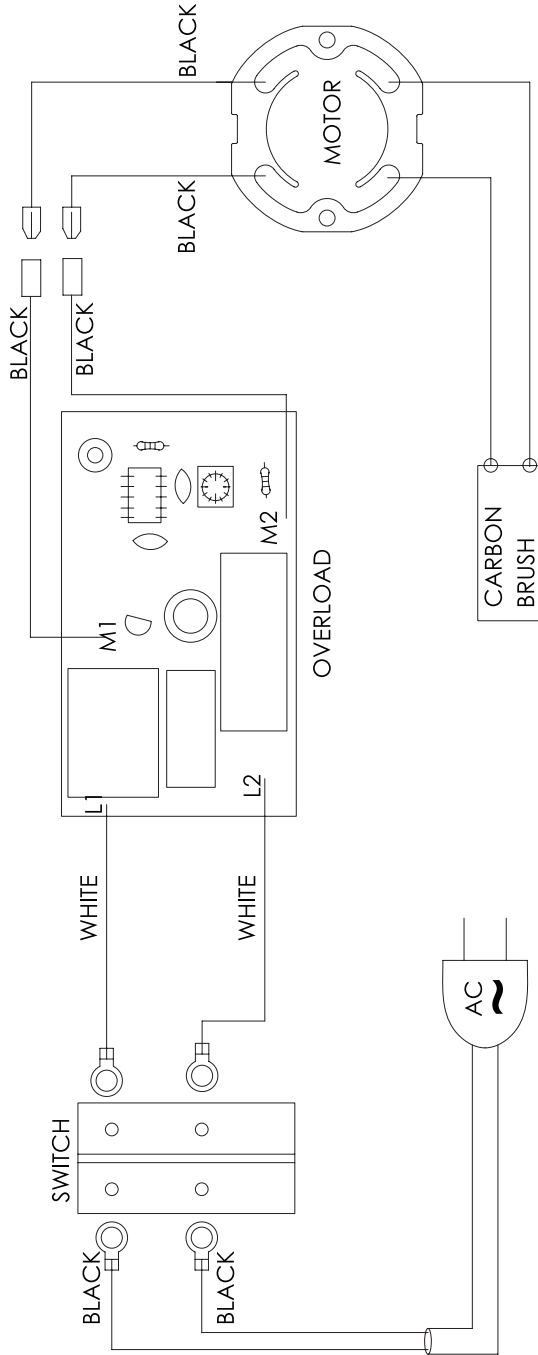


Fig.10

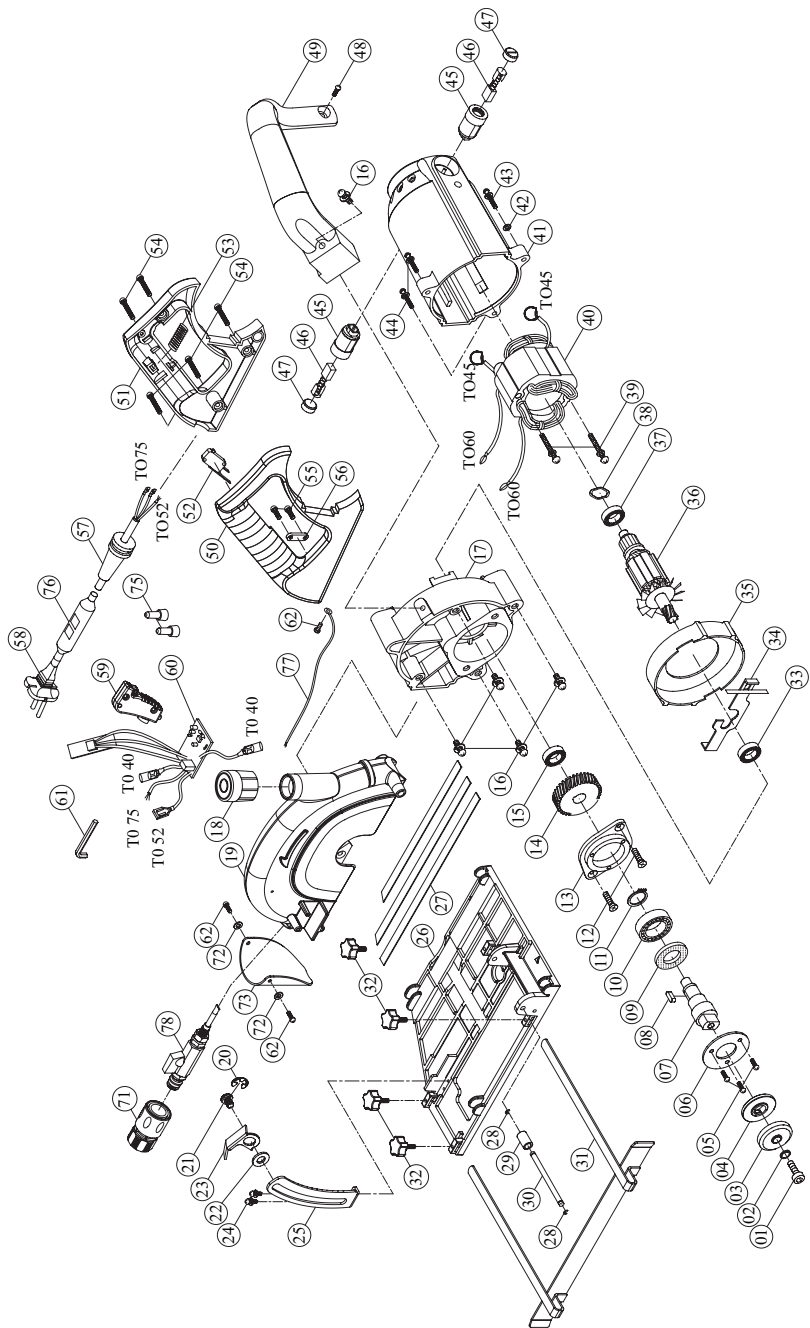
**If the replacement of the power supply cord is necessary, this has to be done by the manufacturer or their agent in order to avoid a safety**

# WIRING





# EXPLODED VIEW



# PARTS LIST

No.	Parts Name	QTY	No.	Parts Name	QTY
1	ARBOR BOLT M8 × 20	1	36	ARMATURE M1.25 x 8T	1
2	FLAT WASHER Ø8 × Ø20 × 3	1	37	BALL BEARING 6200-2RU	1
3	OUTER FLANGE	1	38	WAVE SPRING WASHER	1
4	INNER FLANGE Ø21.9 / Ø22.2	1	39	STATOR SCREW M5 × 60	2
5	FLAT HEAD SCREW M4 × 8	3	40	STATOR	1
6	RETAINING PLATE	1	41	MOTOR HOUSING	1
7	SPINDLE	1	42	FLAT WASHER Ø5 × Ø12 × 1	1
8	PARALLEL KEY 5 × 5 × 12	1	43	SCREW M5 × 30	1
9	FELT PACKING Ø19 × Ø35 × 4	1	44	SCREW M5 × 50	2
10	BALL BEARING 6202-2RS	1	45	BRUSH HOLDER 7 × 11	2
11	EXTERNAL CIRCLIP S-15	1	46	CARBON BRUSH 7 × 17 × 17	2
12	FLAT HEAD SCREW M5 × 15	2	47	BRUSH CAP 7 × 11	2
13	BEARING HOLDER	1	48	SCREW M5 × 20	1
14	OUTPUT GEAR M1.25 x 30T	1	49	AUX. HANDLE	1
15	BALL BEARING 608 zz	1	50	HANDLE HALF RIGHT	1
16	SCREW M5 × 20	5	51	HANDLE HALF LEFT	1
17	GEAR CASE	1	52	SWITCH	1
18	DUST PORT CAP	1	53	SPRING Ø0.8 × Ø6.4 × Ø8 × 26L × 9T	1
19	BLADE COVER	1	54	SCREW M4 × 25	5
20	E-CLIP E-10	1	55	SCREW M4 × 14	2
21	DEPTH STOP BOLT M8 × 12	1	56	CORD CLIP	1
22	FLAT WASHER Ø8 × Ø20 × 1	1	57	CORD ARMOR	1
23	DEPTH STOP LEVER	1	58	POWER SUPPLY CORD	1
24	SCREW M4 × 8	2	59	SWITCH TRIGGER	1
25	DEPTH STOP TRACK	1	60	ELECTRONICS UNIT	1
26	BASE PLATE	1	61	L-TYPE HEX WRENCH M6	1
27	ANTI-FRICTION STRIPS 25cm x 1 ; 28.5cm x 1 ; 29cm x 1	3	62	SCREW M4 x 8	3
			63-70	N/A	-
28	E-CLIP E-7	2	71	WATER COUPLING 1/2" ; 3/4"	1
29	BUSHING Ø8.1 × Ø15.9 × 18.3	1	72	FLAT WASHER Ø4 × Ø10 × 1	2
30	SWIVEL AXLE Ø7.9 × 96.3	1	73	RUBBER FENDER	1
31	PARALLEL GUIDE	1	74	N/A	-
32	THUMB KNOB M5	4	75	WIRE CONNECTOR C4	2
33	BALL BEARING 6002-2RU	1	76	OVERLOAD PROTECTION	1
34	SPINDLE LOCK	1	77	EARTH WIRE 20AWG x 25cm	1
35	FAN SHROUD	1	78	WATER FEED CONNECTOR KIT	1

