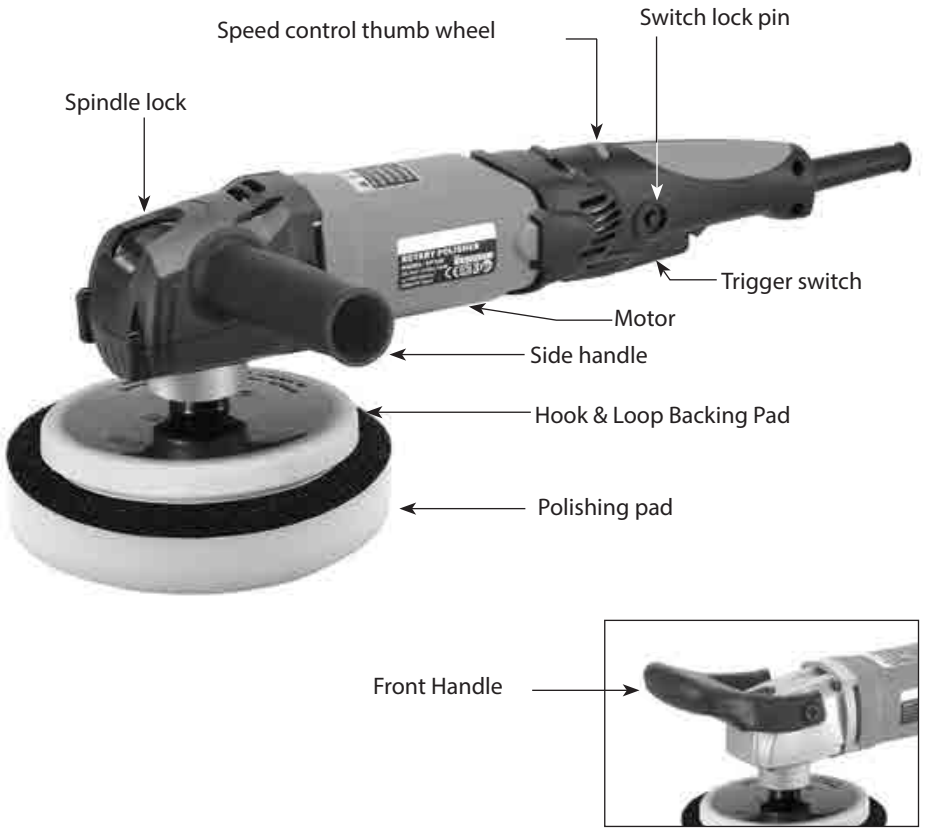
Rotary Polisher

INSTRUCTION MANUAL

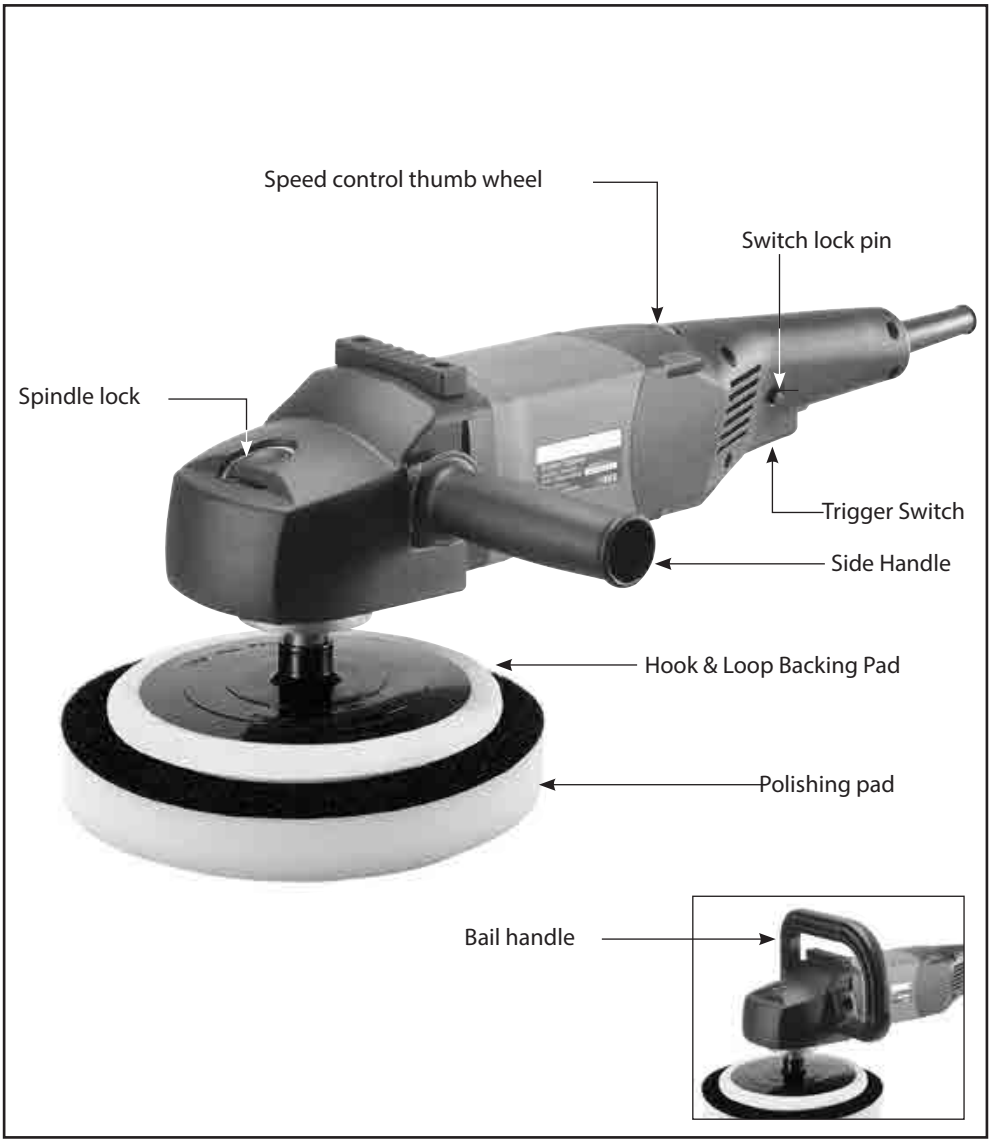
For your personal safety, READ and UNDERSTAND before using.
SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

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.

Version:20160808



Power input	1200 W
No Load min^{-1}	1000 ~ 2400
Spindle	M14
Maximum recommended pad diameter	150mm
Net weight	2.3 kg (5.07Lbs)



Power input	1700 W
No Load min^{-1}	800~ 2400
Spindle	M14
Maximum recommended diameter	180mm
Net weight	3.4 kg (7.5Lbs)

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 mainsoperated (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. **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. **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_o……..no load speed

min^{-1}….....revolutions or reciprocation per minute


.....warning of general danger


…..class II tool


….with electrical earth


.....read these instructions


.....always wear eye protection


.....always wear a dust mask.


.....always wear hearing protection


.....wear safety-approved hard hat


.....Keep hands clear – pinching hazard.


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


rotating parts - entanglement hazard. Keep hands, loose clothing and long hair away from moving parts


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

SPECIFIC SAFETY RULES

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

* lead from lead-based paints
* crystalline silica from bricks and cement and other masonry products
* arsenic and chromium from chemically-treated lumber

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, always wear NIOSH/OSHA approved, properly fitting face mask or respirator when using such tools

1. **Use clamps or other practical way to secure and support the workpiece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.
2. **Keep hands away from rotating parts.**
3. **Wear eye and hearing protection. Always use safety glasses. Everyday eyeglasses are NOT safety glasses.**
   USE CERTIFIED SAFETY EQUIPMENT.
4. **Use of this tool can generate and disburse dust or other airborne particles, including wood dust, crystalline silica dust and asbestos dust.** Direct particles away from face and body. Always operate tool in well ventilated area and provide for proper dust removal. Use dust collection system wherever possible. Exposure to the dust may cause serious and permanent respiratory or other injury, including silicosis (a serious lung disease), cancer, and death. Avoid breathing the dust, and avoid prolonged contact with dust. Allowing dust to get into your mouth or eyes, or lay on your skin may promote absorption of harmful material. Always use properly fitting NIOSH/OSHA approved respiratory protection appropriate for the dust exposure, and wash exposed areas with soap and water.

Terminology

DANGER: indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING: indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION: indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. or indicates potentially hazardous situation which, if not avoided, may result in property damage.

NOTE: indicates useful advice for operating the machine for best performance or convenience, etc.

MOTOR

Always check the nameplate to ensure the A.C. current supply is the correct voltage for your machine. This tool will operate on voltage within plus or minus 5 percent of that shown on the specification plate on the tool. Refer to the specification plate on your tool for proper voltage and current rating. Do not operate your tool on a current on which the voltage is not within correct limits. If an extension cord is used, make sure the conductor size is large enough to prevent excessive voltage drop which will cause loss of power and possible motor damage. If an extension cord is to be used outdoors, it must be marked with the suffix WA or W following the cord type designation. For example – SJTW-A to indicate it is acceptable for outdoor use. Always choose the shortest possible cord.

EXTENSION CORD SELECTION

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

FOREWORD

This Rotary Polisher (also known as a Circular Polisher) is designed for fast compounding, polishing, buffing and sanding. The pad spins on one axis, so much work can be done quickly. In polishing applications, much heat can be built up in a small area, which could lead to paint damage. Therefore, this tool is recommended for use by professionals only. Anyone new to rotary polishers should master the craft on scrap car panels, available at a local salvage yard.

ASSEMBLY

CAUTION: DISCONNECT TOOL FROM POWER SOURCE.

Thread on the hook and loop backing plate. Press the arbor lock and turn until it engages then tighten. A wrench is not necessary.

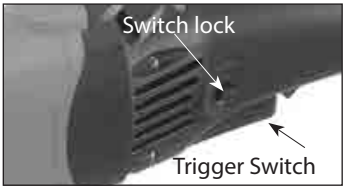
Carefully center and add the desired accessory to the backing plate.

OPERATION

TO START AND STOP THE MACHINE

CAUTION: Make sure switch is OFF and power circuit voltage is the same as that shown on the specification plate.

1. Connect tool to power source.
2. Grip machine firmly to resist starting torque.
3. Squeeze trigger switch to turn tool on. Release the trigger to shut tool off.
4. To lock the switch in the "on" position, press the lock pin while the switch is fully on. To release the lock, press the switch and release it.

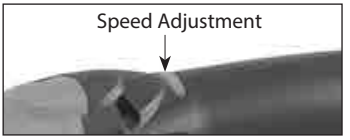


CONTROLLING THE VARIABLE SPEED

Speed is adjusted two ways, giving the operator excellent control. The thumbwheel sets the maximum speed, while the trigger increases the speed steplessly from zero upwards to the maximum. This machine incorporates feedback speed stabilization so that the speed will not slow with load. It will maintain the preset speed regardless of the load.

Always start at a slower speed and work up to the best speed.

1. With switch in the locked ON position the thumbwheel may be used to adjust the speed.
2. The trigger switch can also be used to progressively adjust the speed from zero to the maximum speed (which is preset by the position of the thumbwheel).



POLISHING OPERATION

WARNING: If the item to be polished is not attached to anything and is light enough to be moved by the spinning polishing pad, it should be securely clamped or anchored to prevent it being thrown or flung, resulting in possible injury.

1. Hold the machine firmly by the front and rear handles, making sure the polishing pad is clear of foreign objects.
2. Start the machine and lower it at an angle so that about half of the polishing pad contacts the work.
3. Move the machine in long continuous sweeping strokes. DO NOT HOLD POLISHER IN ONE SPOT Doing so will overheat the surface and cause swirl marks. It is possible to damage and burn through the paint very quickly.
4. Always be sure motor has stopped before setting the machine down.

MAINTENANCE

Every 50 hours of operation blow compressed air through the motor while running at no load to clean out accumulated dust. (If operating in especially dusty conditions, perform this operation more often.)

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.

FAILURE TO START

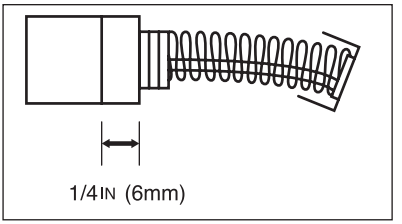
Should your tool fail to start, check to make sure the prongs on the cord plug are making good contact in the outlet. Also, check for blown fuses or open circuit breakers in the line

THE CARBON BRUSHES

The carbon brushes are a normal wearing part and must be replaced when they reach their wear limit.

NOTE: Checking and replacing the carbon brushes should be entrusted to a qualified service center.

The carbon brushes furnished will last approximately 50 hours of running time or 10,000 on/off cycles. Replace both carbon brushes when either has less than 1/4" length of carbon remaining.



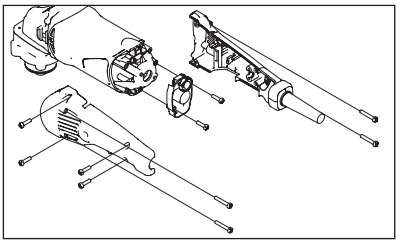
To inspect or replace brushes, first unplug the machine. Carefully remove the 4 screws to separate the rear handle halves and then remove the 4 screws (1500W models 5 screws) which connect the handle to the motor housing. Lift away the left-hand handle half first. There will still be wires connected to the rear handle, so take care that these are not stressed. Simply hold the rear handle off to one side.

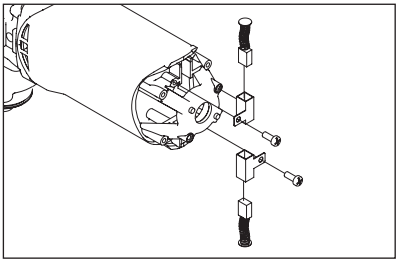
1200W models:

Remove the two screws holding on the

Electronics Unit to allow access to the Brush Holder screws. Hold the Electronics Unit off to one side and avoid stressing the wires. Unscrew the two Carbon Brush Holders and remove the Carbon Brushes.

1200W models:

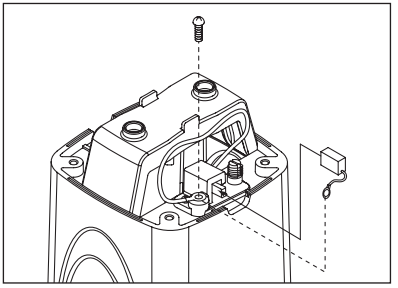




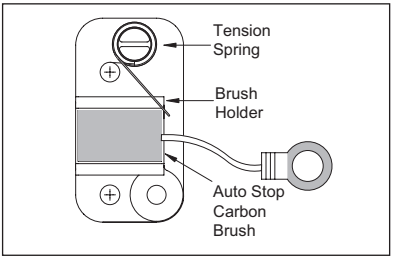
1700W models:

Using pliers, rotate the brush spring out of the way and slide old carbon brush out of the brush holder. Unplug the spade connector to remove the brush lead. The old carbon brush many now be lifted away.

1700W models:



1700W models:



Replacing is the reverse of removal. Replace the Brush Holder screws, then the Electronics Unit screws. When Replacing the rear handle to the motor housing, take great care that all wires are in place and not in a position to be pinched when it is retightened. It is recommended that, at least once a year, you take the tool to an Authorized Service Center for a thorough cleaning and lubrication.

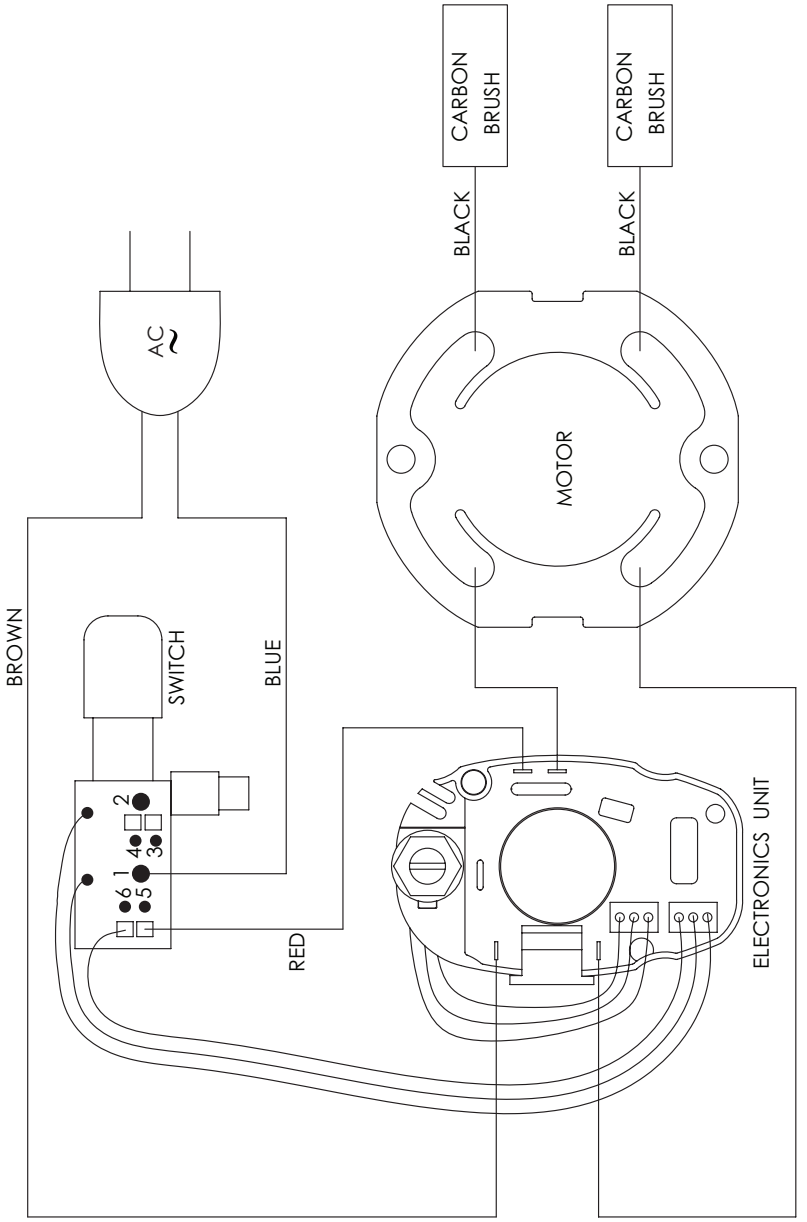
NOTE: When putting the Carbon Brushes back into the Carbon Brush Holders it is essential that both flanges go back inside the holder.

NOTE: To reinstall the same brushes, first make sure the brushes go back in the way they came out. Otherwise a break-in period will occur that will reduce motor performance and increase brush wear.

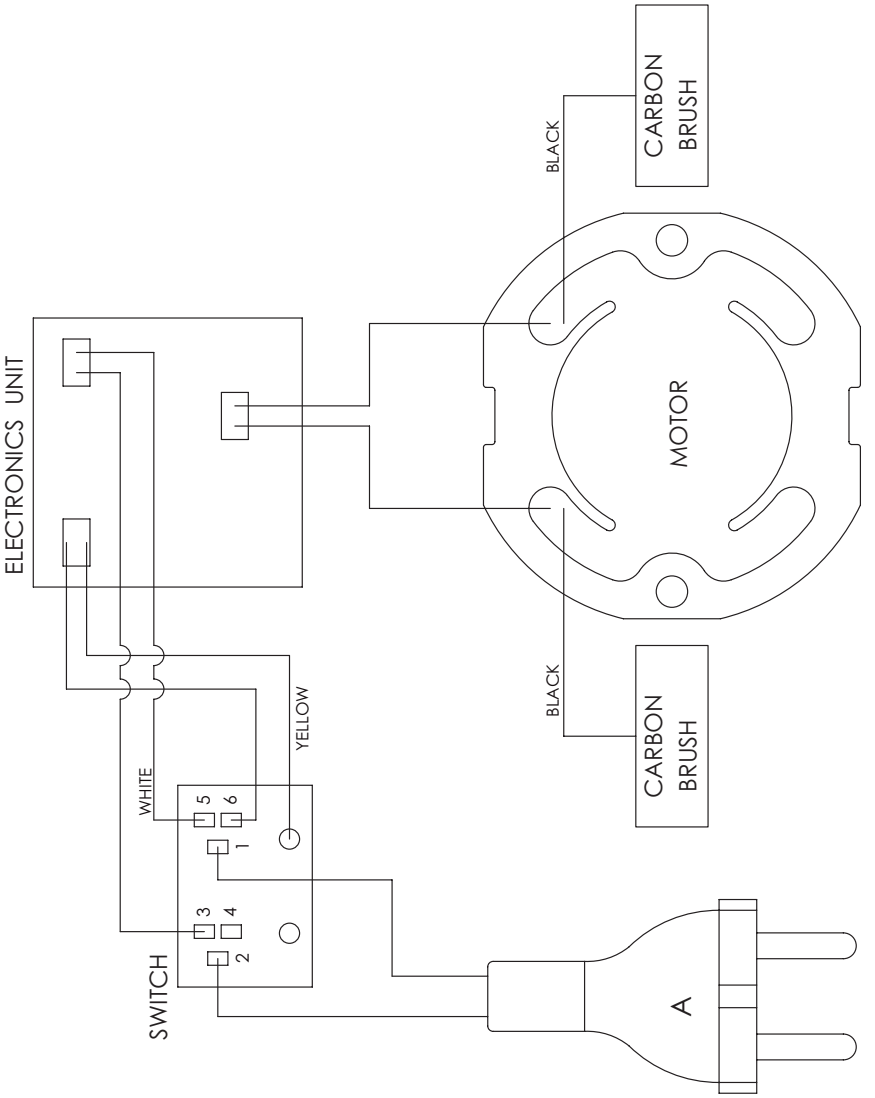
If the replacement of the power supply cord is necessary, this has to be done by the manufacturer or their agent in order to avoid a safety hazard.

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

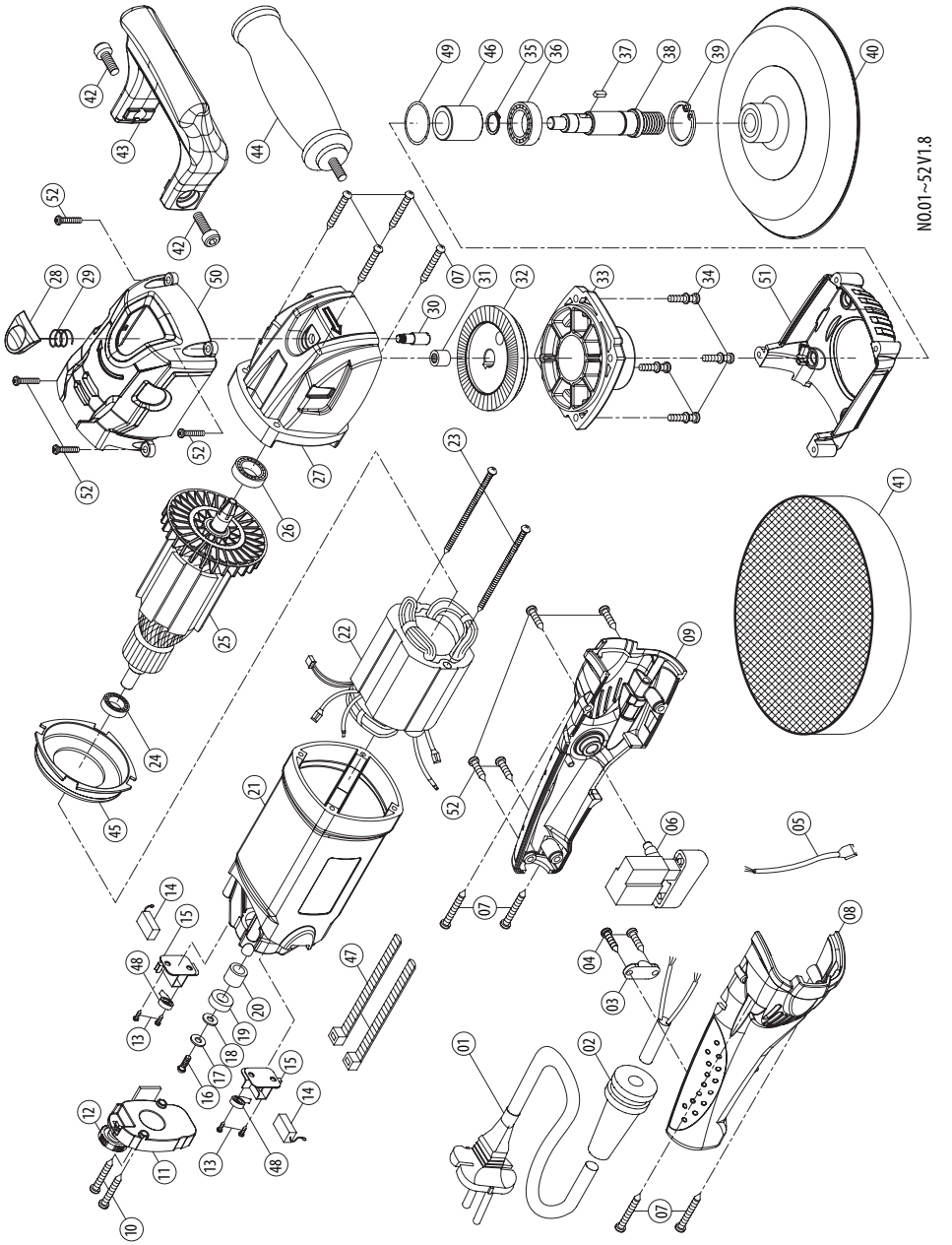
1200W WIRING



1700W WIRING



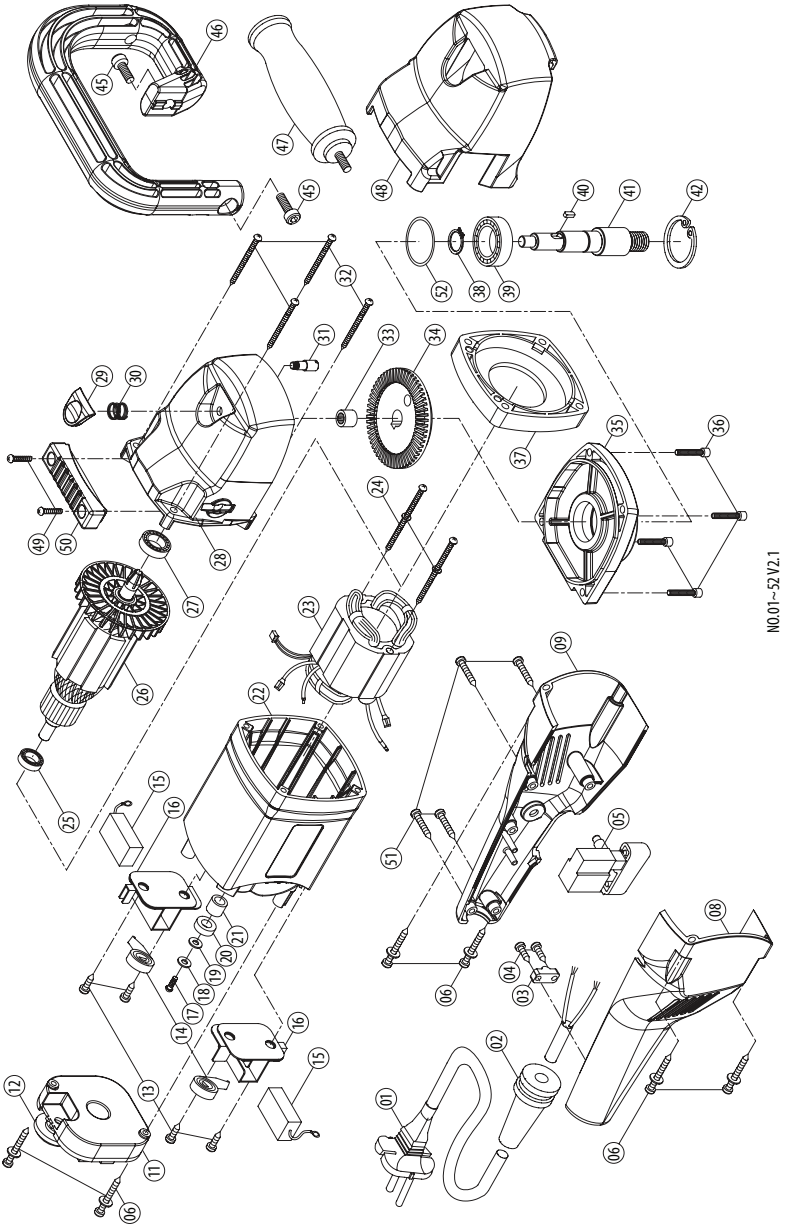
1200W EXPLODED VIEW



1200W PARTS LIST

NO.	Parts Name	Q'TY	NO.	Parts Name	Q'TY
1	POWER SUPPLY CABLE	1	27	GEAR CASE	1
2	CORD ARMOR	1	28	SPINDLE LOCK BUTTON	1
3	CABLE CLIP	1	29	SPRING Ø0.9 x Ø10 x Ø11.8 x 13.5L x 4T	1
4	SCREW M4 x 14	2	30	SPINDLE LOCK	1
5	WIRE LEAD	1	31	NEEDLE BEARING HK 0810	1
6	SWITCH	1	32	BEVEL GEAR M1.0 x 67T	1
7	SCREW M4 x 25	8	33	GEAR PLATE	1
8	RIGHT HANDLE COVER	1	34	SCREW M4 x 16	4
9	LEFT HANDLE COVER	1	35	EXTERNAL CIRCLIP S-15	1
10	SCREW M4 x 20	2	36	BALL BEARING 6002-2RS	1
11	ELECTRONICS UNIT	1	37	PARALLEL KEY 5 x 5 x 10	1
12	THUMB WHEEL	1	38	SPINDLE	1
13	BRUSH SCREW M4 x 10	4	39	INTERNAL CIRCLIP R-32	1
14	CARBON BRUSH 7 x 11 x 17 +33L+FLDNBI-110	2	40	BACKING PAD	1
15	CARBON BRUSH HOLDER	2	41	HOOK & LOOP SPONGE PAD Ø151 x 27H	1
16	SCREW M4 x 10	1	42	SOCKET CAP SCREW M8 x 16	2
17	FLAT WASHER Ø4 x Ø10 x 1	1	43	FRONT HANDLE	1
18	PLASTIC WASHER Ø4 x Ø11 x 1	1	44	SIDE HANDLE	1
19	PICKUP MAGNET Ø8 x Ø15 x 5	1	45	FAN BAFFLE	1
20	SPACER Ø8 x Ø12 x 10.5	1	46	SPACER Ø15 x Ø22 x 24.5	1
21	MOTOR HOUSING	1	47	ZIP TIE 2.4 x 80mm	2
22	STATOR	1	48	SPIRAL TORSION SPRING	2
23	STATOR SCREW M4 x 60	2	49	O-RING Ø32 x 2	1
24	BALL BEARING 608-2RU	1	50	UPPER GEARCASE COVER	1
25	ARMATURE M1.0 x 6T	1	51	LOWER GEARCASE COVER	1
26	BALL BEARING 6000-2RS	1	52	SCREW M4 x 16	8

1700W EXPLODED VIEW



1700W PARTS LIST

NO.	Parts Name	Q'TY	NO.	Parts Name	Q'TY
1	POWER SUPPLY CABLE	1	27	BALL BEARING 6001-LLU	1
2	CORD ARMOR	1	28	GEAR CASE	1
3	CABLE CLIP	1	29	SPINDLE LOCK BUTTON	1
4	SCREW M4 x 14	2	30	SPRING ø0.9 x ø10 x ø11.8 x 4T x 13.5L	1
5	SWITCH	1	31	SPINDLE LOCK	1
6	SCREW M4 x 30	6	32	SCREW M5 x 40	4
7	N/A	-	33	NEEDLE BEARING HK 0810	1
8	RIGHT HANDLE COVER	1	34	BEVEL GEAR M1.25 x 67T	1
9	LEFT HANDLE COVER	1	35	GEAR PLATE	1
10	N/A	-	36	SOCKET CAP SCREW M5 x 25	4
11	ELECTRONICS UNIT	1	37	FAN BAFFLE	1
12	THUMB WHEEL	1	38	INTERNAL CIRCLIP S-15	1
13	SCREW M4 x 10	4	39	BALL BEARING 6202-2NSE	1
14	BRUSH SPRING	2	40	PARALLEL KEY 5 x 5 x 10	1
15	CARBON BRUSH 7 x 11 x 17 +33L+FLDNBI-110	2	41	SPINDLE M14	1
16	CARBON BRUSH HOLDER	2	42	EXTERNAL CIRCLIP R-35	1
17	SCREW M4 x 10	1	43	N/A	-
18	FLAT WASHER ø4 x ø10 x 1	1	44	N/A	-
19	PLASTIC WASHER ø4 x ø11 x 1	1	45	SOCKET CAP SCREW M8 x 20	2
20	PICKUP MAGNET ø8 x ø15 x 5	1	46	BAIL HANDLE	1
21	SPACER ø8 x ø12 x 10.5	1	47	SIDE HANDLE	1
22	MOTOR HOUSING	1	48	GEARBOX COVER	1
23	STATOR	1	49	SCREW M5 x 15	2
24	SCREW M5 x 60	2	50	MOTOR REST	1
25	BALL BEARING 608-2RU NMB	1	51	SCREW M4 x 16	4
26	ARMATURE M1.25 x 6T	1	52	O-RING ø35 x 3	1