

# RAIL MATE SANDER / POLISHER

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

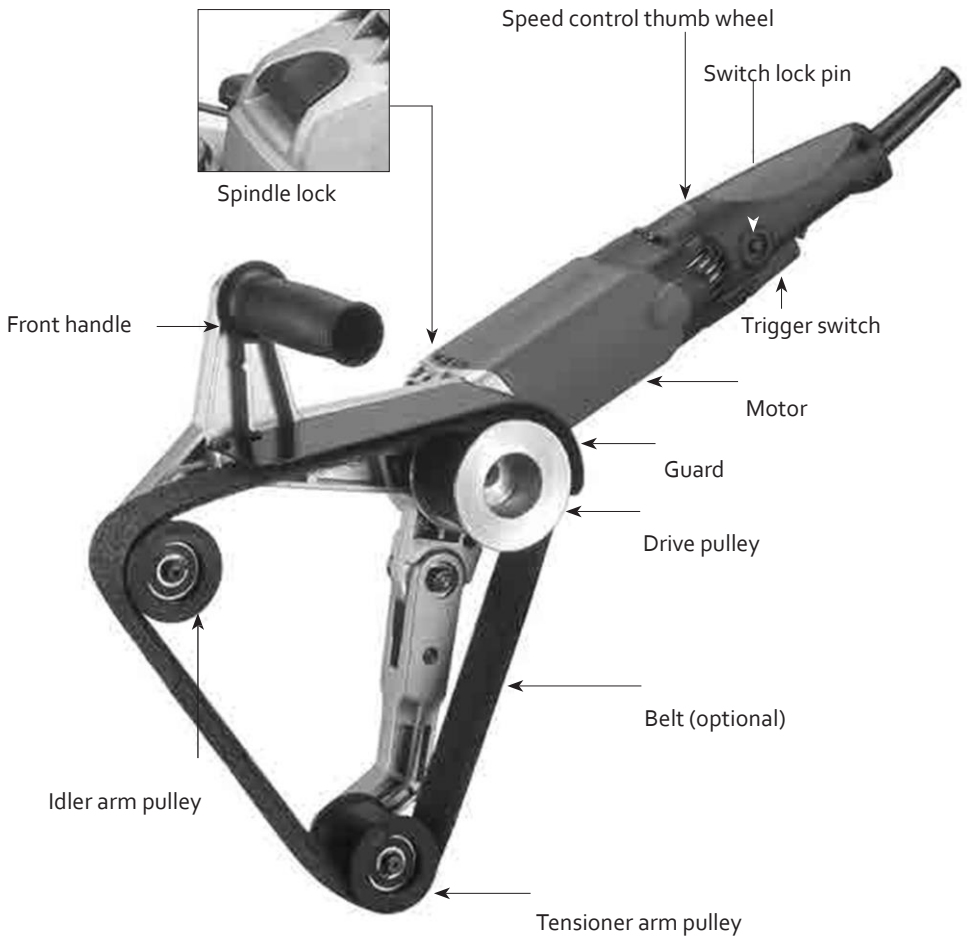


Only tools equipped with over load protection, when motor has been cut off due to over load, always switch on machine with no load for at least 3 minutes to reduce temperature before switch on again to avoid burn out to the motor.



Version:20160805

Power input	110V / 850W , 220V / 1200W
Voltage	See machine nameplate
No Load min <sup>-1</sup>	1600 ~ 3200
Surface speed	3~12 m/sec
Max. belt length	760mm
Max. belt width	40mm
Soft start & Overload protection	Yes
Net weight	3.1 kg (6.83Lbs)



## GENERAL INSTRUCTIONS

## SAFETY



**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

$n_0$ .....no load speed

$\text{min}^{-1}$ .....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**

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

## **THE GUARD AND HANDLE**

Place the front handle in position on the belt guard and tighten by hand.

## **WRAPAROUND TUBE SANDER / POLISHER optional accessories:**

- \* Surface Conditioning belt
- \* 120 grit Sandpaper belt
- \* Sanding Sponge Belt-Fine

## **FOREWORD**

This Wraparound Tube Sander is especially designed for fast sanding, compounding, mirror polishing and buffing of stainless steel and aluminum open and closed tube forms. There are different belts available in various grits. The unique feature of this machine is its ability to contact a tubular surface and wrap around about 180 degrees(for 1200W mode) of its circumference at a time for very fast and efficient working.

## **ASSEMBLY**

**CAUTION: DISCONNECT TOOL FROM POWER SOURCE.**

## INSTALLING THE BELT

**CAUTION: DISCONNECT TOOL FROM POWER SOURCE.**

1. Lay the machine so that it is upside down resting on the front handle (with the handle parallel to the ground).
2. Loop belt around the drive pulley and the idler arm (stationary) pulley.
3. While pushing the tensioner arm down against the spring to create enough slack, slip the belt over the tensioner arm pulley. Then release the arm.

## 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.

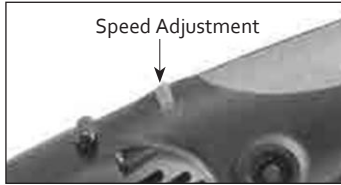
## CONTROLLING THE VARIABLE SPEED

The thumbwheel sets the maximum speed, while the trigger turns the machine on and off. With switch in the locked ON position the thumbwheel may be used to adjust the speed. 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.



## OPERATION

**WARNING:** If the workpiece is not attached to anything and is light enough to be moved by the rotating belt, 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 belt is clear of foreign objects.
2. Start the machine and lower it to the work.
3. Move the machine along the tube in strokes.  
**DO NOT HOLD TOO LONG IN ONE SPOT**  
Doing so may overheat the surface and cause uneven results.
4. Always be sure motor has stopped before setting the machine down.

When using the machine to apply products (compounds, polishes, waxes, cleaners, etc.) always read and follow the manufacturers directions supplied with product. In this case do not run the machine without the belt in contact with work surface. Otherwise the media will be thrown outwards. Start and stop the machine with the belt against work surface.

**NOTE:** Do not use the same belt to apply different grades of compound. The coarser compound will contaminate the finer compound, causing poor results.

## 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

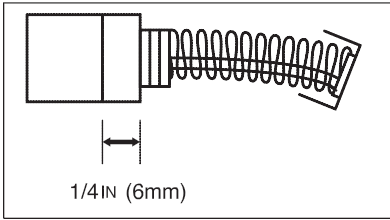
Should your tool fail to start, check to make sure the prongs on the cord plug are making good contact in the outlet. Also, check for blown fuses or open circuit breakers in the line.

## 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.

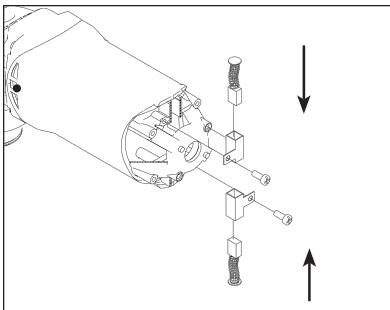
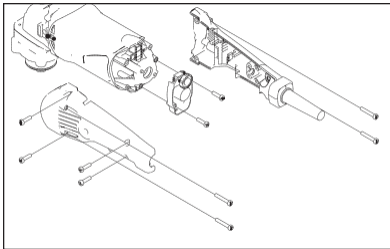
The carbon brushes furnished will last approximately 50 hours of running time or 10,000 on/off cycles. Replace both carbon brushes when either has less than 1/4" length of carbon remaining.



To inspect or replace brushes, first unplug the machine.

Carefully remove the 8 screws to separate the two handle halves and remove from the motor housing. Remove the left 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.



Next 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 in turn and remove the Carbon Brushes.

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

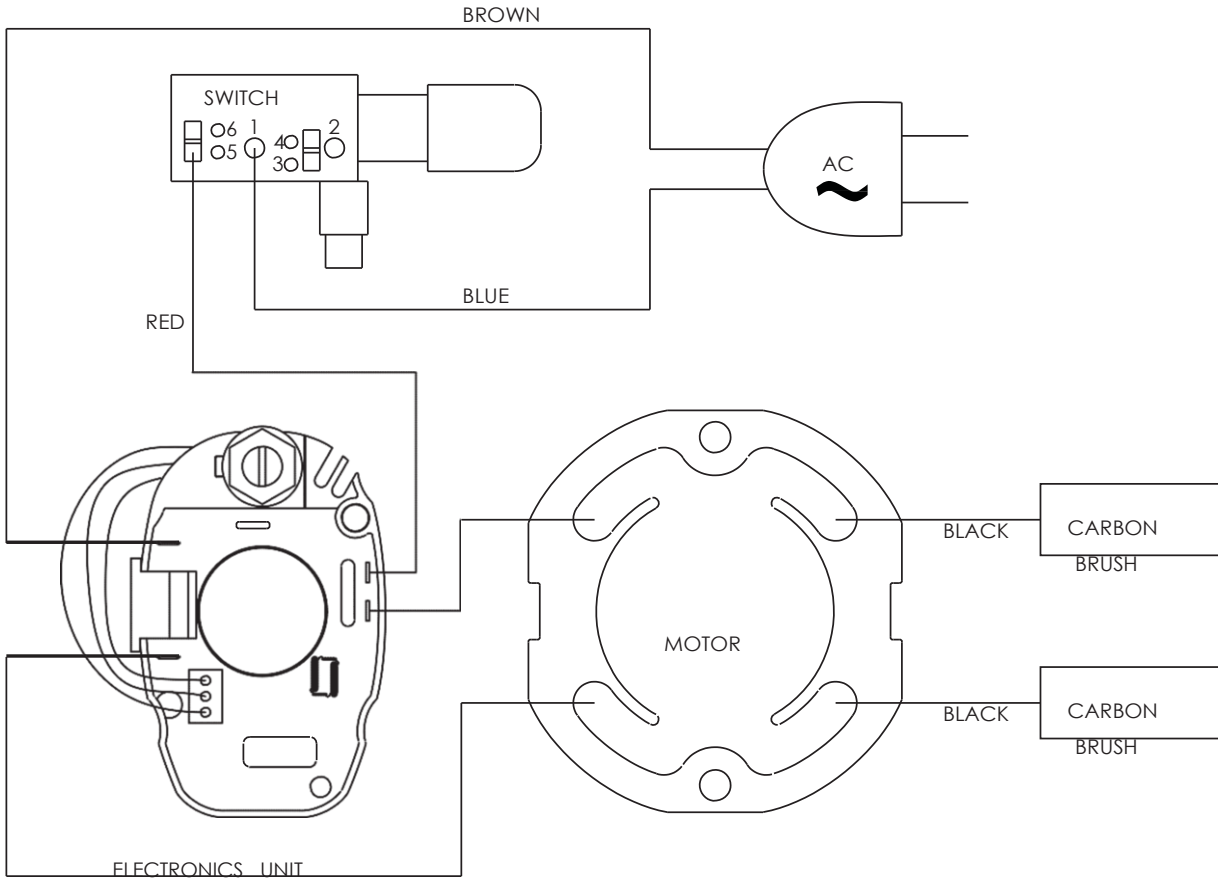
**NOTE:** To reinstall the same brushes, first make sure the brushes go back in the way they came out. Otherwise a break-in period will occur that will reduce motor performance and increase brush wear.

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.

**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



**WIRING (1200W Mode)**

