

# CONCRETE GRINDER

Original instructions For your personal safety,

**READ** and **UNDERSTAND** before using.

**SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.**

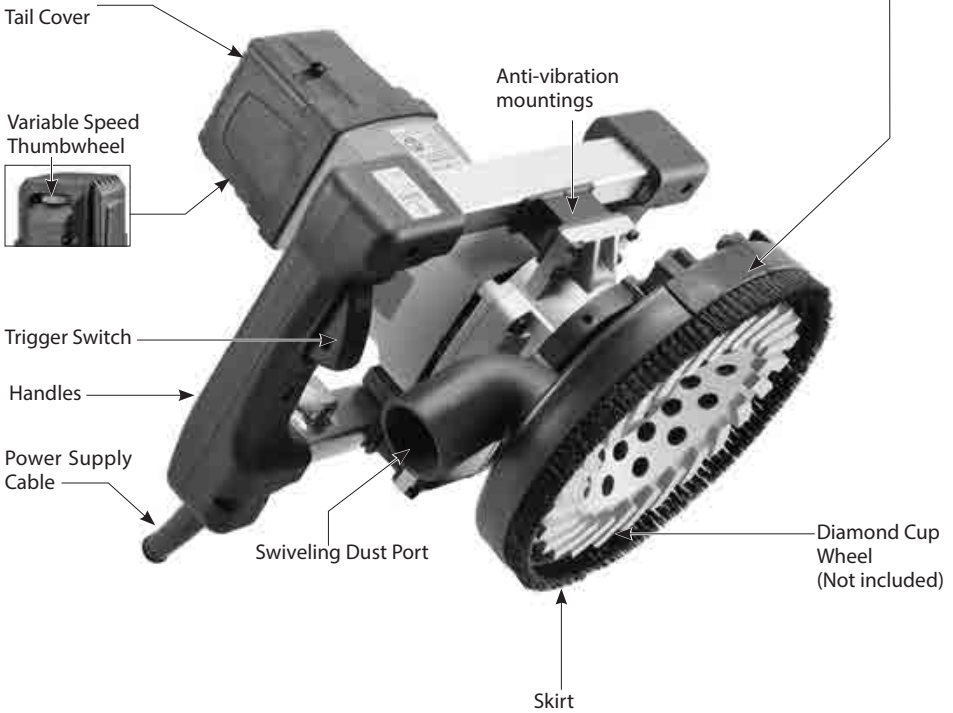
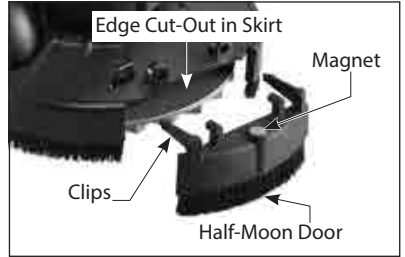
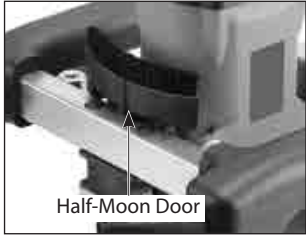


CECB

**CAUTION:**

For tools equipped with overload protection, when the motor shuts off due to overload, always run the machine with no load for at least 3 minutes to reduce temperature before returning to operation to avoid burn-out of the motor.

Power Input	110-120V:1700W, 220-240V:2200W
Voltage	See machine nameplate
No Load/min <sup>-1</sup>	3200 - 6500
Wheel Diameter	180mm (7")
Dimensions	246mm x 280mm x 325mm
Weight	5.74(12.62Lbs)



**SAVE THIS INSTRUCTION MANUAL FOR FUTURE REFERENCE**

The manufacturer has the right to change any component without notice.

## 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
- $n_0$ .....no load speed
- min<sup>-1</sup>.....revolutions or reciprocation per minute



.....warning of general danger



.....class II tool



.....read these instructions



.....always wear eye protection



.....always wear a dust mask.



.....always wear hearing protection



.....wear safety-approved hard hat



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

## SAFETY WARNINGS COMMON FOR GRINDING OPERATIONS

- a. **This power tool is intended to function as a grinder. Read all safety warnings, instructions, illustrations and specifications provided with this power tool.** Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.
- b. **Operations such as sanding, wire brushing, polishing or cutting-off are not recommended to be performed with this power tool.** Operations for which the power tool was not designed may create a hazard and cause personal injury.
- c. **Do not use accessories which are not specifically designed and recommended by the tool manufacturer.** Just because the accessory can be attached to your power tool, it does not assure safe operation.
- d. **The rated speed of the accessory must be at least equal to the maximum speed marked on the power tool.** Accessories running faster than their rated speed can break and fly apart.
- e. **The outside diameter and the thickness of your accessory must be within the capacity rating of your power tool.** Incorrectly sized accessories cannot be adequately guarded or controlled.
- f. **The arbour size of wheels, flanges, backing pads or any other accessory must properly fit the spindle of the power tool.** Accessories with arbour 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.
- g. **Do not use a damaged accessory. Before each use inspect the accessory such as abrasive wheels for chips and cracks, backing pad for cracks, tear or excess wear, wire brush for loose or cracked wires. If power tool or accessory is dropped, inspect for damage or install an undamaged accessory. After inspecting and installing an accessory, position yourself and bystanders away from the plane of the rotating accessory and run the power tool at maximum no-load speed for one minute.** Damaged accessories will normally break apart during this test time.
- h. **Wear personal protective equipment. Depending on application, use face shield, safety goggles or safety glasses. As appropriate, wear dust mask, hearing protectors, gloves and workshop apron capable of stopping small abrasive or workpiece fragments.** The eye protection must be capable of stopping flying debris generated by various operations. The dust mask or respirator must be capable of filtrating particles generated by your operation. Prolonged exposure to high intensity noise may cause hearing loss.
- i. **Keep bystanders a safe distance away from work area. Anyone entering the work area must wear personal protective equipment.** Fragments of workpiece or of a broken accessory may fly away and cause injury beyond immediate area of operation.
- j. **Hold the power tool by insulated gripping surfaces only, when performing an operation where the cutting accessory may contact hidden wiring or its own cord.** Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- k. **Position the cord clear of the spinning accessory.** If you lose control, the cord may be cut or snagged and your hand or arm may be pulled into the spinning accessory.
- l. **Never lay the power tool down until the accessory has come to a complete stop.** The spinning accessory may grab the surface and pull the power tool out of your control.
- m. **Do not run the power tool while carrying it at your side.** Accidental contact with the

spinning accessory could snag your clothing, pulling the accessory into your body.

- n. **Regularly clean the power tool's air vents.** The motor's fan will draw the dust inside the housing and excessive accumulation of powdered metal may cause electrical hazards.
- o. **Do not operate the power tool near flammable materials.** Sparks could ignite these materials.
- p. **Do not use accessories that require liquid coolants.** Using water or other liquid coolants may result in electrocution or shock.

## KICKBACK AND RELATED WARNINGS

Kickback is a sudden reaction to a pinched or snagged rotating wheel, backing pad, brush or any other accessory. Pinching or snagging causes rapid stalling of the rotating accessory which in turn causes the uncontrolled power tool to be forced in the direction opposite of the accessory's rotation at the point of the binding. For example, if an abrasive wheel is snagged or pinched by the workpiece, the edge of the wheel that is entering into the pinch point can dig into the surface of the material causing the wheel to climb out or kick out. The wheel may either jump toward or away from the operator, depending on direction of the wheel's movement at the point of pinching. Abrasive wheels may also break under these conditions.

Kickback is the result of power tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.

- a. **Maintain a firm grip on the power tool and position your body and arm to allow you to resist kickback forces. Always use auxiliary handle, if provided, for maximum control over kickback or torque reaction during start-up.** The operator can control torque reactions or kickback forces, if proper

precautions are taken.

- b. **Never place your hand near the rotating accessory.** Accessory may kickback over your hand.
- c. **Do not position your body in the area where power tool will move if kickback occurs.** Kickback will propel the tool in direction opposite to the wheel's movement at the point of snagging.
- d. **Use special care when working corners, sharp edges etc. Avoid bouncing and snagging the accessory.** Corners, sharp edges or bouncing have a tendency to snag the rotating accessory and cause loss of control or kickback.
- e. **Do not attach a saw chain woodcarving blade or toothed saw blade.** Such blades create frequent kickback and loss of control.

## SAFETY WARNINGS SPECIFIC FOR GRINDING AND ABRASIVE CUTTING-OFF OPERATIONS

- a. **Use only wheel types that are recommended for your power tool and the specific guard designed for the selected wheel.** Wheels for which the power tool was not designed cannot be adequately guarded and are unsafe.
- b. **The guard must be securely attached to the power tool and positioned for maximum safety, so the least amount of wheel is exposed towards the operator.** The guard helps to protect the operator from broken wheel fragments, accidental contact with wheel and sparks that could ignite clothing.
- c. **Wheels must be used only for recommended applications. For example: do not grind with the side of cut-off wheel.** Abrasive cut-off wheels are intended for peripheral grinding, side forces applied to these wheels may cause them to shatter.
- d. **Always use undamaged wheel flanges that**

**are of correct size and shape for your selected wheel.** Proper wheel flanges support the wheel thus reducing the possibility of wheel breakage. Flanges for cut-off wheels may be different from grinding wheel flanges.

- e. **Do not use worn down wheels from larger power tools.** Wheel intended for larger power tool is not suitable for the higher speed of a smaller tool and may burst.

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

## SAFETY SYMBOLS

**CAUTION: Indicates a potentially hazardous situation, which, if not avoided may result in minor or moderate injury. It may also be used to alert against unsafe practices that may cause property damage.**

**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 will result in death or serious injury.**

## BEFORE USING THIS TOOL

**WARNING: Some dust created by the 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-bases paints
- Crystalline silica from bricks, 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 such as dust masks specially designed to filter out microscopic particles.

**WARNING: To reduce the risk of mistakes that could cause serious or permanent injury, do not plug the machine in until the following steps have been completed.**

- Learn the use and function of the ON-OFF switch.
- Review and understand all Safety
- Instructions and Operating Procedures in this manual.
- Review the maintenance methods for this tool.

## REDUCE THE RISK OF DANGEROUS ENVIRONMENT

- Use the machine in a dry or indoor place protected from rain.
- Place the machine so that neither the user nor bystanders are forced to stand in line with Machine. Thrown debris could injure people in its path.

## BEFORE EACH USE INSPECT YOUR MACHINE

- Disconnect the Power Scouring Machine from its power source to reduce the risk of injury from accidentally starting, before changing any setup.
- Check for proper alignment of moving parts.
- Check for damaged electric cords.
- Check for binding of moving parts.
- Check for broken parts.
- Ensure work piece is stable
- Check for other conditions that may affect the way the machine works.

**Maintain Tools With Care.** Keep the machine clean for best and safest performance. Follow instructions for lubricating.

## TO REDUCE THE RISK OF INJURY FROM JAMS, SLIPS OR THROWN PIECES

- To reduce the risk of burns or other fire damage, never use the machine near flammable liquids, vapors or gases,
- Make sure all clamps are tight and there is no excessive play in any parts,
- Keep Work Area Clean. Cluttered areas and benches invite accidents. Floor must not be slippery.

**Know Your Machine.** Read and thoroughly understand the Operator's Manual and labels affixed to the tool. Learn its applications and limitations as well as the specific potential for hazards peculiar to this tool. To reduce the risk of injury from accidental contact with moving parts, don't do layout, assembly, or setup work on the machine while any parts are moving.

## WHENEVER MACHINE IS RUNNING

**WARNING: Don't allow familiarity (gained from**

**frequent use of the Power tool ) cause a careless mistake. A careless fraction of a second is enough to cause a severe injury.**

If the machine makes an unfamiliar noise or vibrates a lot, STOP IMMEDIATELY. Turn the tool OFF. Unplug the machine. Do not restart until finding and correcting the problem. Make sure all visitors, bystanders and children are clear of tool and work piece.

## BEFORE FREEING JAMMED MATERIAL

- Turn tool "OFF" by releasing trigger switch,
- Wait for all moving parts to stop,
- Unplug the machine.

## NEVER LEAVE RUNNING TOOL UNATTENDED

- Turn power "OFF"
- Wait for all moving parts to stop,
- Unplug the machine

**WARNING: The operation of any power tool can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before beginning tool operation always wear safety goggles with side shields and a full-face shield when needed. We recommend a Wide Vision Safety Mask for use over eyeglasses or standard safety glasses with side shields.**

## MAKE WORKSHOP CHILD PROOF

Lock the shop.  
Disconnect master switches.  
Store tool away from children and others not qualified to use the tool.

Look for this symbol to point out important safety precautions. It means ATTENTION!!! Your safety is



involved .

## **MOTOR AND ELECTRICAL REQUIREMENTS**

**WARNING: To reduce the risk of electrical hazards, fire hazards or damage to the tool, use proper circuit protection. To reduce the risk of shock or fire, if the power cord is worn or cut, or damaged in any way, have it replaced immediately.**

## **ELECTRICAL CONNECTIONS**

**NOTE:** The plug supplied on your tool may not fit into the outlet you are planning to use. Your local electrical code may require slightly different power cord plug connections. If these differences exist refer to and make the proper adjustments per your local code before your tool is plugged in and turned on. In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord that has equipment grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances. Do not modify the plug provided. If it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation has an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

If the power cord is worn or cut, or damaged in any way, have it replaced immediately by a qualified electrician. If the grounding instructions are not completely understood, or if you are in doubt as to

whether the tool is properly grounded check with a qualified electrician or service personnel.

**WARNING: Do not permit fingers to touch the terminals of plug when installing or removing the plug from the outlet to avoid injury or possible death from electrical shock.**

**WARNING: If not properly grounded, this tool can cause an electrical shock, particularly when used in damp locations, in proximity to plumbing, or outdoors. If an electrical shock occurs there is the potential of a secondary hazard, such as your hands contacting the milling head.**

## **MOTOR SAFETY PROTECTION**

**IMPORTANT: To avoid motor damage, this motor should be blown out or vacuumed frequently to keep dust from interfering with normal motor ventilation.**

1. Connect this tool to a power source with the appropriate voltage for your model.
2. If the motor won't start, turn the switch "OFF" immediately and unplug the tool.
3. If the motor suddenly stalls while milling, release the trigger switch and unplug the tool. The motor may now be restarted.
4. Fuses may "blow" or circuit breakers may trip frequently for the following reasons:
  - a. **Motor Is Overloaded** - Overloading can occur if you make too many start/stops in a short time.
  - b. Line voltages should not be more than 10% above or below the nameplate voltage. For heavy loads, however, the voltage at motor terminals must equal the voltage specified for your model. Improper or dull milling head is being used.
5. Most motor troubles may be traced to loose or incorrect connections, overload, low

voltage, (such as small size wire in the supply circuit) or to an overly long supply circuit wire. Always check the connections, the load and the supply circuit whenever motor doesn't work well. Check wire sizes and length with the Wire Size Chart.

## WIRE SIZES

**NOTE:** Make sure the proper extension cord is used and is in good condition. . The use of any extension cord will cause some loss of power. To keep this to a minimum and to prevent overheating and motor burnout, use the table on Page 8 to determine the minimum wire size (A.W.G.) extension cord.

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

## UNPACKING

**WARNING: To reduce the risk of injury from unexpected starting or electrical shock, do not plug the power cord into a power source outlet during unpacking and assembly. The cord must remain unplugged whenever you are working on the tool.**

**Your tool is shipped complete in one box.**

Remove the tool and all loose parts from the carton.

Place all parts on a secure, stationary work surface and look the machine over carefully.

## LIST OF PARTS

**NOTE:** Before beginning assembly, check that all parts are included. If you are missing any part(s), do not assemble the machine. Sometimes small parts can get lost in packaging material. Do not throw away any packaging until tool is put together. Check packaging for missing part(s). A complete parts list (Repair Parts) is at the end of the manual. Use the list to identify the number of the missing part(s).

**WARNING: If any parts are missing do not operate your Power Scouring Machine until the missing parts are replaced. Failure to do so could result in possible serious injury.**

### List of Contents

Basic Assembly.....	1
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Side Handle.....	1
Lock Nut Wrench.....	1
Face Spanner Wrench .....	1
L-Hex Wrench.....	1
Flanges.....	2

## RECOMMENDED ACCESSORIES

This machine may only be used with diamond cup wheels of 180mm diameter with 22.23mm (7/8") arbor hole or with M14 female thread. All other uses are prohibited.

Bonded abrasive accessories are not allowed to be used with this machine.

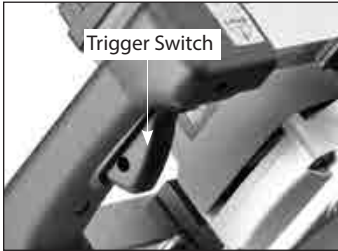
## BASIC OPERATION

**NOTE: 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.**

## Lock-Off Trigger Switch

**On** - The machine has a lock-off trigger switch. First press the switch button, then squeeze the trigger switch to start the motor.

**Off** - Release the trigger switch.



**CAUTION: After the machine has been switched off, the spindle will continue rotating. Take care that parts of your body do not come into contact with the rotating parts or set the machine down while it is still rotating!**

## HOW TO USE THE TOOL

Effective control of this machine requires **two-handed** operation for maximum protection and resistance to the start-up and operating torque. Place the work properly and hold the machine firmly **WITH BOTH HANDS** to prevent loss of control, which could cause personal injury. Protect your eyes from injury with safety glasses or goggles.

**WARNING: Keep the cord behind the operator and away from grinding area to prevent it from becoming entangled.**

## OVERLOAD

This machine is equipped with overload protection which will shut off the motor if the maximum

allowable current is exceeded. If the overload trips, remove from the work surface, release the switch and then switch back on. The machine will restart.

**CAUTION: Whenever the machine overloads, always run the machine at no load for a few minutes to allow the temperature to return to normal before proceeding to work.**

## SPEED STABILIZATION

This machine is equipped with an electronic speed stabilization system which maintains constant speed under load.

## VARIABLE SPEED FUNCTION

The motor's speed can be varied from 4000 up to 8500/min<sup>-1</sup> to suit the needs of different work situations. Turn the Variable Speed Thumbwheel clockwise to increase speed and anti-clockwise to decrease.

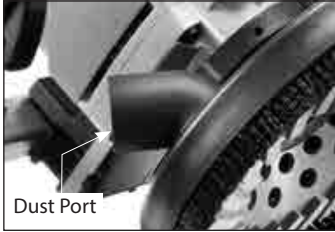


## VACUUM CONNECTION

**WARNING: Dust developing while working can be harmful to one's health.**

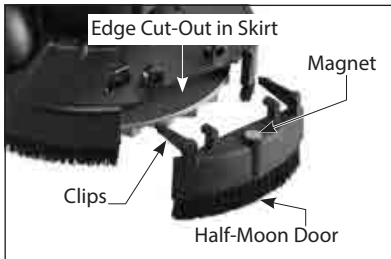
This machine is designed specifically for dry grinding of concrete and similar materials. It uses dry diamond cup wheels and must be used with a suitable vacuum cleaner. Never exhaust the dust directly into the atmosphere.

To attach vacuum hose to Dust Port, hold machine firmly with one hand. Then with a twisting motion push the vacuum hose onto the Dust Port.



## SAFETY GUARD

The Safety Guard (ie. the Skirt) must be used at all times when operating this machine. It is not adjustable. The Half-Moon Door may be temporarily removed to expose the Edge Cut-Out. See below.



## THE EDGE CUT-OUT

When working against a wall or into a corner, the Skirt will prevent the grinding head from reaching all the way to the edge. In this case, one may remove the Half-Moon Door by pushing inward on the two clips. The Half-Moon Door may be temporarily adhered to the handle crossbar using its magnet. This will expose the Edge Cut-Out in the skirt. This will allow the Grinding Head reach right up to the edge. Dust collection will not be ideal so replace the door as soon as access to the Edge Cut-Out is no longer needed.

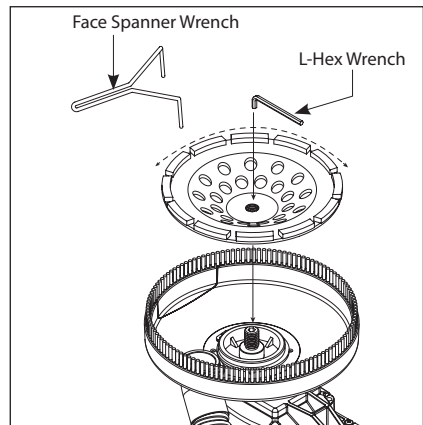
## TOOL CHANGE – Removing and Replacing Diamond Cup Wheel

**CAUTION: Before Working on or adjusting the machine, switch the machine “OFF” and UNPLUG machine from the socket.**

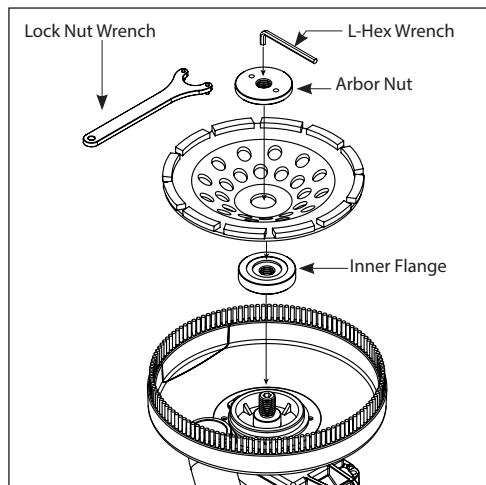
**CAUTION: The wheel can become very hot during the working process. Before replacing, allow the wheel to cool down**

1. Place the machine on a level and sturdy workspace.
2. If using a diamond cup wheel with M14 female thread, do not use the flanges. Simply thread the wheel onto the spindle. Use the L-Hex Wrench to keep the spindle from turning and tighten the wheel using the Face Spanner Wrench.
3. If using a diamond cup wheel with 7/8" (22.23mm) arbor hole, first thread the Inner Flange onto the spindle. Mount the wheel onto the shoulder of the Inner Flange, then thread on the Arbor Nut. Use the L-Hex Wrench to keep the spindle from turning and tighten the Arbor Nut with the Lock Nut Wrench.
4. Removal is the reverse of the above.

## INSTALLING DIAMOND CUP WHEELS W/ M14 FEMALE THREAD.



## INSTALLING DIAMOND CUP WHEELS W/ 7/8" (22.23MM) BORE.



### STORAGE

**CAUTION: Do not store machine resting on its bristles – Store on its side.**

**CAUTION: Do not store machine with its power supply cable pinched. This will result in damage to the cable.**

### REPLACING CARBON BRUSHES

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

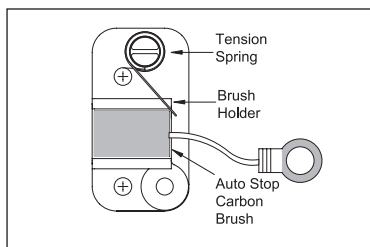
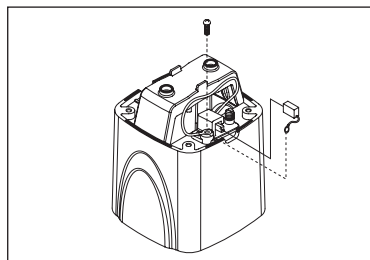
**CAUTION: Always replace the brushes as a pair.**

#### To replace:

Remove the four screws and remove tail cover. Using pliers, rotate the brush spring out of the way and slide old carbon brush out of the brush holder. Unscrew the screw to remove the brush lead. The old carbon brush may now be lifted away. Install a new brush. Installation is the reverse of

removal.

Replace the motor tail cover.



**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. It is recommended that, at least once a year, you take the tool to an Authorized Service Center for a thorough cleaning and lubrication.

### MAINTENANCE

**WARNING: To reduce the risk of injury from unexpected starting or electrical shock, unplug the power cord before working on the machine.**

Keep the tool clean. Remove accumulated dust from working parts. Make sure that the tool operates properly. Periodically check screws and bolts for tightness.

## KEEPING TOOL CLEAN

Keep the machine and air inlet louver clean at all times to ensure correct and safe working. Under extreme application conditions involving metal, dust can enter the interior of the machine. The protective insulation of the machine can be adversely affected. In such cases the machine should be blown out regularly through the air inlet louver. It is recommended that a vacuum attachment be used.

**WARNING: To ensure safety and reliability, all repairs, with the exception of externally**

**accessible brushes, should be performed at an Authorized Service Center.**

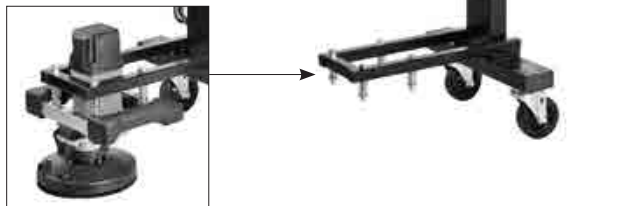
**WARNING: If the replacement of the power supply cord is necessary, this has to be done by the manufacturer or their agent in order to avoid a safety hazard.**

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.

## OPTIONAL FLOOR GRINDING TROLLEY

This machine has built-in mounting tabs in its handle for mounting to the optional floor grinding trolley for fatigue free grinding of floors. The trolley's 4 spring-loaded mounting plungers thread into the tabs to suspend the machine.

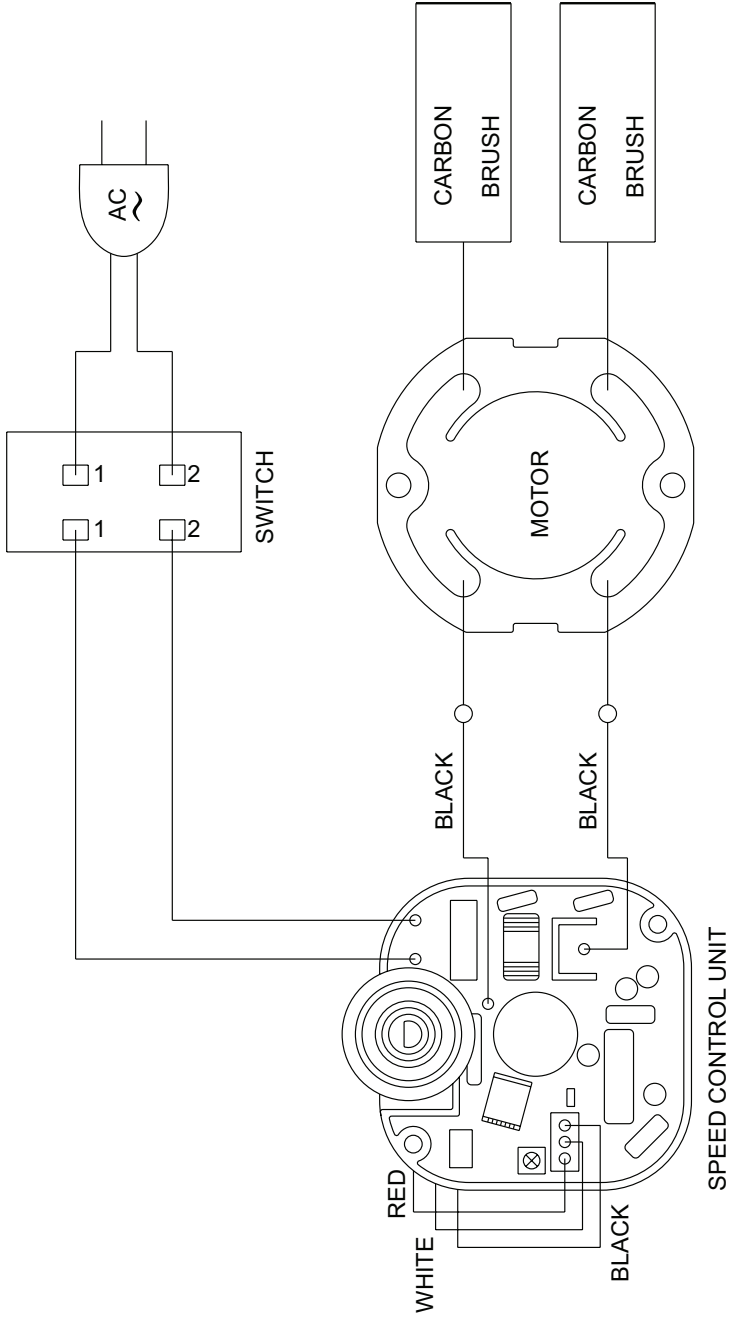
To keep the switch locked on, first ensure that the tool is unplugged. With the trigger switch on, wrap the hook and loop strap around the switch. Plug the tool into the socket on the trolley. Then use the switch on the trolley to turn the tool on and off.



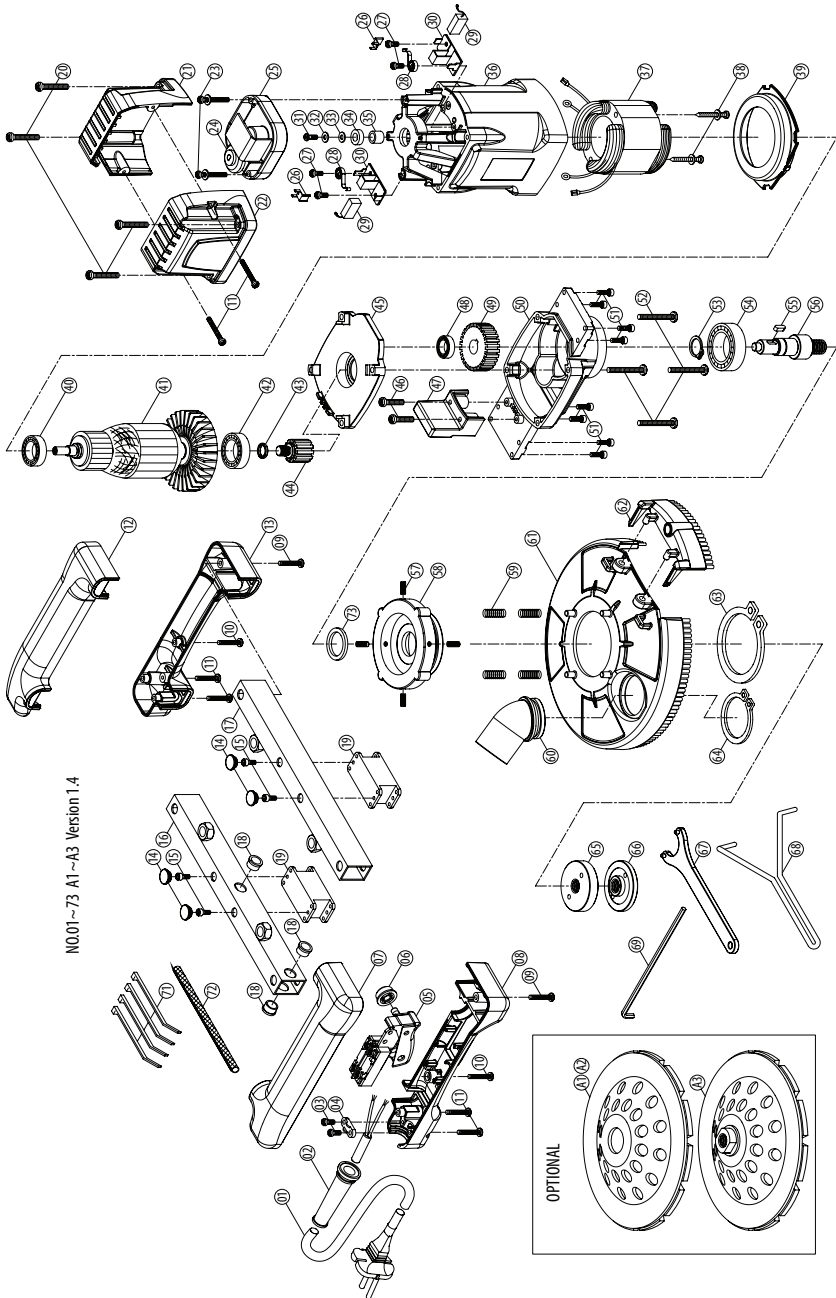
### CAUTION:

**Do not attempt edge grinding with the machine mounted to the floor grinding trolley. The extra leverage of the trolley will easily damage the sanding plate cover dust skirt when it inevitably contacts the wall. In addition, the range of motion allowed by the floor grinding trolley is not suitable for edge grinding. Always perform edge grinding in hand-held mode only. Only use the floor grinding trolley for open areas.**

# WIRING



# EXPLODED VIEW

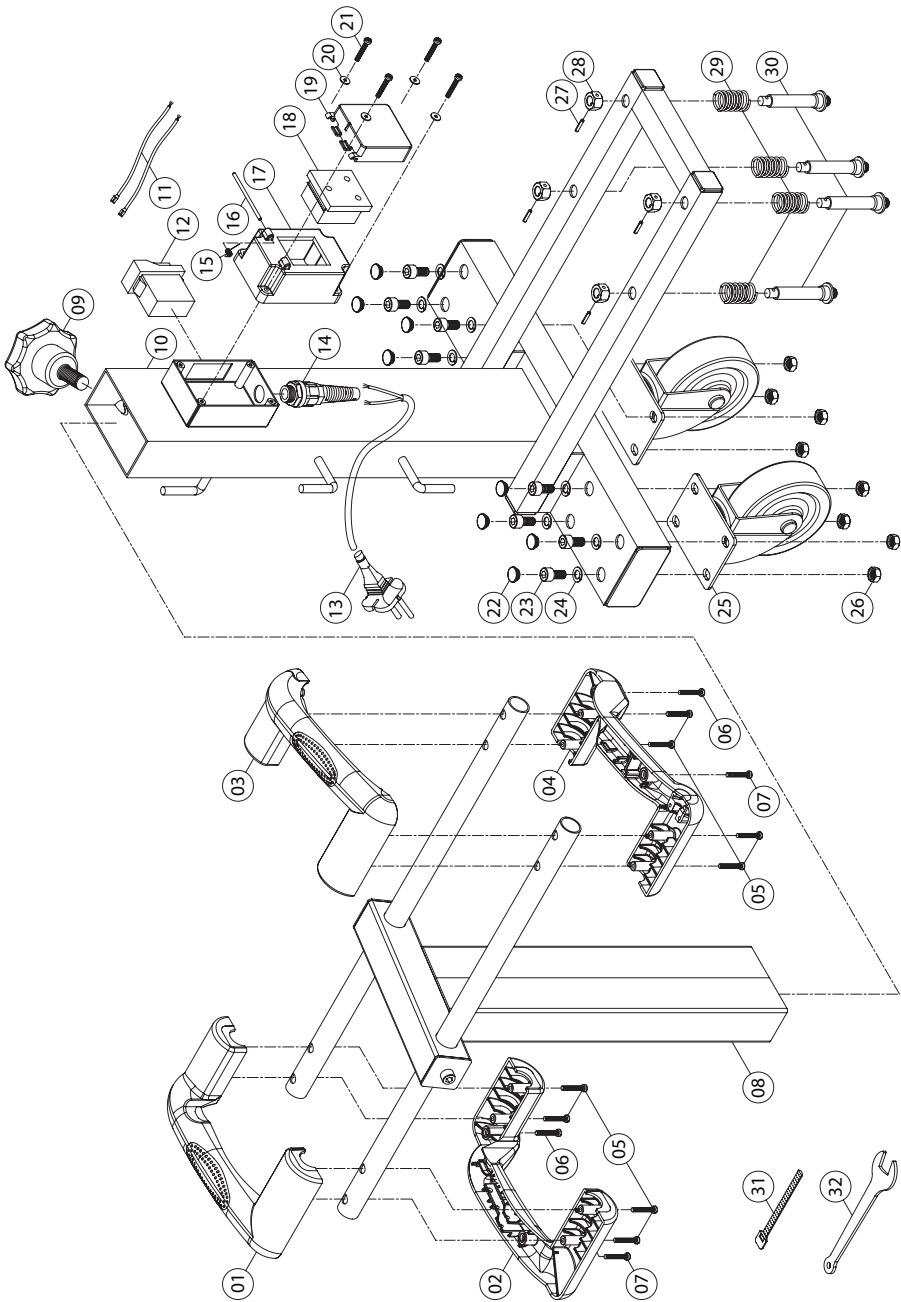




## PARTS LIST

No.	Parts Name	Q'ty	No.	Parts Name	Q'ty
1	POWER SUPPLY CORD	1	40	BEARING 6200-LLU	1
2	CORD ARMOR	1	41	ARMATURE	1
3	SCREW M4 x 14	2	42	BEARING 6202-2NSE	1
4	CORD CLIP	1	43	SPACER	1
5	SWITCH LOCK-OFF	1	44	INPUT GEAR M1.5 x 11T	1
6	SWITCH BUTTON	1	45	GEAR PLATE	1
7	GRIP-RIGHT UPPER	1	46	SCREW M4 x 25	2
8	GRIP-RIGHT LOWER	1	47	WIRE COVER	1
9	SCREW M4 x 35	2	48	BEARING 608 zz	1
10	SCREW M4 x 20	2	49	OUTPUT GEAR M1.5 x 29T	1
11	SCREW M4 x 25	6	50	GEAR CASE	1
12	GRIP-LEFT UPPER	1	51	SCREW M4 x 12	8
13	GRIP-LEFT LOWER	1	52	SCREW M5 x 45	4
14	RUBBER PLUG	4	53	EXTERNAL CIRCLIP S-17	1
15	SCREW M4 x 6	4	54	BEARING 6303-LLU	1
16	CROSS BAR LOWER	1	55	PARALLEL KEY 5 x 5 x 12	1
17	CROSS BAR UPPER	1	56	SPINDLE M14 x P2.0	1
18	CABLE BUSHING	3	57	SCREW M5 x 12	4
19	ANTI-VIBRATION MOUNT	2	58	SANDING PLATE BRACKET	1
20	SCREW M5 x 35	4	59	SPRING 00.8x06.1x07.7x8Tx20L	4
21	TAIL COVER-LEFT	1	60	DUST ATTACHMENT	1
22	TAIL COVER-RIGHT	1	61	SANDING PLATE COVER	1
23	SCREW M4 x 30	2	62	HALF-MOON DOOR	1
24	THUMB WHEEL	1	63	EXTERNAL CIRCLIP S-65	1
25	ELECTRONICS UNIT (110V/220V)	1	64	EXTERNAL CIRCLIP S-40	1
26	3-WAY CONNECTOR	2	65	INNER FLANGE M14	1
27	SCREW M4 x 10	4	66	ARBOR NUT M14/22.2mm, M14/25.4mm	1
28	BRUSH SPRING	2	67	LOCK NUT WRENCH 30mm	1
29	CARBON BRUSH 7x17x17	2	68	FACE SPANNER WRENCH 93mm	1
30	CARBON BRUSH HOLDER 7 x 17	2	69	L-HEX WRENCH-M6 M6	1
31	SCREW M4 x 10	1	70	N/A	-
32	FLAT WASHER 04 x 010 x 1	1	71	ZIP TIE 2.5mm x 100mm	4
33	PLASTIC WASHER 04 x 011 x 1	1	72	SILICONTUBE 06 x 45cm	1
34	PICKUP MAGNET 08 x 015 x 5	1	73	FELT OILER 024 x 031.8 x 3	1
35	SPACER 08 x 012 x 10.5	1		<b>BELOW ARE OPTIONAL</b>	
36	MOTOR HOUSING	1	A1	DIAMOND PLATE (A) 022.2	1
37	STATOR	1	A2	DIAMOND PLATE (B) 025.4	1
38	SCREW M5 x 60	2	A3	DIAMOND PLATE (C) M14	1
39	FAN BAFFLE	1			

# FLOOR GRINDING TROLLEY EXPLODED VIEW



NO.01~32 V1.0

## FLOOR GRINDING TROLLEY PARTS LIST

No,	Parts Name	Q'ty
1	HANDLE GRIP-LEFT REAR	1
2	HANDLE GRIP-LEFT FRONT	1
3	HANDLE GRIP-RIGHT REAR	1
4	HANDLE GRIP-RIGHT FRONT	1
5	SCREW M4 x 45	8
6	SCREW M4 x 30	2
7	SCREW M4 x 12	2
8	HANDLE COLUMN	1
9	DEPTH ADJUST NUT	1
10	FRAME	1
11	WIRE LEAD 14AWG x 12cm	2
12	MOTOR SWITCH	1
13	POWER SUPPLY CABLE	1
14	CABLE GLAND M16 x P1.5	1
15	TORSION SPRING $\varnothing 0.7 \times \varnothing 2.5 \times \varnothing 3.9 \times 21L$	1
16	HINGE PIN $\varnothing 2.3 \times 60$	1
17	SWITCH BOX	1
18	INTEGRATED SOCKET	1
19	HINGED COVER	1
20	FLAT WASHER $\varnothing 3 \times \varnothing 10 \times 1$	4
21	SCREW M3 x 20	4
22	CAP HP-16	8
23	SCREW M8 x 16	8
24	SPRING WASHER M8	8
25	CASTER	2
26	NUT M8 x P1.25	8
27	ROLL PIN $\varnothing 3 \times 14$	4
28	HEX SLEEVE	4
29	SPRING $\varnothing 2 \times \varnothing 16 \times \varnothing 20 \times 7T \times 38L$	4
30	PLUNGER	4
31	VELCRO STRAPS	1
32	WRENCH 16mm	1

