

# Alpha Electric Polisher Instructional Guide

AEP-458 (110V - 50/60Hz)



Please read this instruction manual thoroughly to ensure safety and correct use of machine.  
Keep this Manual in a place where operators can access it easily, anytime when necessary.

 **Alpha Professional Tools**<sup>®</sup>

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# ALPHA ELECTRIC POLISHER

## INSTRUCTION MANUAL

Thank you for purchasing the Alpha Electric Polisher. This polisher is the workhorse of a complete polishing system. A wide range of accessories help you perform many different tasks. This tool lets you grind, shape, bevel, contour and polish all kinds of granite and marble. You can easily change from one type of disc to another in just a matter of seconds. The tool is used with water to help you get the best possible finish, to reduce the health risks of dust, and to give the most savings in time and money from modern accessories. For your safety, please read this manual thoroughly before you start operating this polisher.

### About the symbols

Handling this machine incorrectly may cause an accident or injury. In this manual, safety notices are classified into “DANGER”, “WARNING”, and “CAUTION” according to the hazard level:



#### DANGER

Death or serious personal injury are imminent when the operator neglects to follow suggested instructions.



#### WARNING

There is a possibility of death or serious personal injury when the operator neglects to follow suggested instructions.



#### CAUTION

There is a possibility of personal injury or property damage when the operator neglects to follow suggested instructions.

Note: Failing to observe CAUTION notices could result in death or serious personal injury in some situations. Be sure to read and observe the safety notices to ensure safety and correct use of the machine.

### Examples of the symbols

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This symbol is followed by a DANGER, WARNING, or CAUTION notice, which depicts the suggested procedure or practice, and / or possible dangers or injuries.



The ○ symbol signifies prohibition. In or near this symbol, a prohibited action or motion is depicted. (The symbol on the left prohibits disassembling the machine).



The ● symbol signifies an order or instruction, Which is illustrated in the symbol. (The symbol on the left shows to unplug the power cord from the outlet.)

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## Precautions for the safe use of this machine

Correct operation and regular maintenance are essential for the safe operation of this machine. Be sure to read safety notices in this manual carefully before using or servicing the machine.

### 1. Operating environment



#### WARNING

- **Restrict access to the workshop.**

Do not permit anybody but the operator to access the workshop. In particular, be sure to keep children away from the workshop.

- **Be careful of fire or explosions.**

Never use this machine near ignitable or explosive materials including gasoline, combustible gases, or inflammable adhesives.

Otherwise, sparks generated by commutation or switching may cause fire or explosion.



#### CAUTION

- **Keeping the workarea in order.**

Take particular care by keeping the workarea in order.

Leaving the work bench or work area untidy could cause cloth or material to be caught at the end of tools or machine to be dropped, resulting in a very dangerous situation.

### 2. Clothing and Protective equipment



#### WARNING

- **Wear personal safety clothing and equipment.**

Be sure to wear all personal safety equipment including protective glasses, waterproof safety boots, earplugs, and rubber gloves. If necessary, wear a dustproof mask in dusty areas. Inhaling dust can damage the throat, lungs and circulatory system.



#### CAUTION

- **Wear appropriate clothing**

Do not wear loose clothing.

They can be caught in the rotating part of the machine.

### 3. Before use



#### WARNING

- **Supply the specified voltage**

Supply the voltage specified on the nameplate of the machine.

Otherwise, damage could result to the machine, or risk of personal injury.

- **Do not let water into the motor.**

Water inside the machine will weaken the electrical insulation of the motor and may result in electric shock.

- **Take measures against electric shock.**

Be sure to install an GFCI to the power source to prevent electric shock.



## CAUTION

- **Use the machine only for its designated applications.**

Do not use the machine for any purpose other than those specified in this manual.

Do not use the machine for grinding or polishing metal and wood workpieces.

This machine is specialized for processing of glass and natural stone.

## 4. Attaching tools



## WARNING

- **Prevent accidental start-up.**

Be sure to unplug the power cord from the outlet before attaching or removing polishing wheels.

Starting the motor accidentally may cause bodily injury.

## 5. During use



## DANGER

- **Do not touch rotating parts.**

Never access or touch the rotating wheel of the machine with your hands or body during operation.



## WARNING

- **Secure work piece.**

Use clamps to securely fix a workpiece onto the bench.

A loose workpiece may drop and cause injury.

- **Do not operate the machine from an awkward position.**

Ensure a secure footing and stable body position before and during operation the machine.

Operating the machine in an awkward position will increase human fatigue.

- **Prevent accidental start-up.**

Turn off the power switch before plugging the power cord into the outlet.

Turn off the power switch and unplug the power cord when power failure occurs.

Do not carry the machine while the power cord is connected to the outlet.

Starting the motor accidentally may cause bodily injury

- **Do not overload the machine.**

Never operate the machine at an output which exceeds the rated voltage specified on the plate.

- **Operate the machine with attention.**

Do not use the machine when you cannot concentrate or make appropriate decisions (when tired, or under the influence of drugs or alcohol)



## CAUTION

- **Use the machine after you have appropriate training and knowledge about it.**  
Never permit an untrained person or a child to use the machine.
- **Handle the machine with care.**  
If you accidentally drop, do not use the machine until checking that it is not cracked, deformed, or in any way damaged.  
Do not block the ventilation window to avoid motor burnout.

## 6. After use



## WARNING

- **Use specified parts**  
Use specified genuine replacement parts when servicing the machine



## CAUTION

- **Conduct adequate maintenance and inspection.**  
Blow dust from inside the motor.  
Always clean and maintain the power cord to prevent damage due to oils or grease.
- **Unplug the power cord when not using the machine.**  
Be sure to unplug the power cord from the outlet before maintenance, change parts, inspection, or cleaning.
- **Keep the machine in a safe place.**  
After using the machine, remove any dust or dirt from it and store it in a dry, safe place.  
Do not store the machine in areas:
  - where children can reach the machine or it can be easily tampered with;
  - where temperature and humidity fluctuate suddenly;
  - where the machine is exposed in rain and high humidity;
  - where the machine is exposed in direct sunlight.
- **Handle the cord properly.**  
Do not move the machine without unplugging the power cord, or pull the power cord out of the outlet.  
By doing so may cause disconnection or short-circuit.  
Avoid contact with heat, oil, or sharp objects.

## ATTENTION

Observe the laws and regulations of noise levels in your area.  
Please observe local laws and regulations regarding noise control in order to avoid disturbing surrounding areas.  
Install a soundproof wall if required to comply with the local laws and regulations.

### Precautions for using the Alpha Electric Polisher.

In addition to the general safety notices described on the preceding pages, please read and observe the following safety notices before using the machine.



#### WARNING

- **Use protective cover.**

Be sure to attach the protective cover and use it during operation.

The protective cover will protect the operator if the wheel breaks.

- **Do not leave the machine unattended while running.**

Do not leave the machine unattended on the workbench or workshop while it is running.

- **If you accidentally drop the machine, do not use the machine until checking that it is not cracked, deformed, or damaged.**

Cracks, deformation, or damage of the machine and/or wheel may cause bodily injury.



#### CAUTION

- **Follow the procedures specified in the instruction manual correctly to attach a wheel or an accessory to the machine.**

If accessories are not correctly attached, they will scatter or fall off and may cause bodily injury.

- **When for the 1st time a new wheel is attached and machine is turned on, observe any suspicious abnormal noises.**

- **Conduct a test run.**

Wait until the machine reaches operating rotation speed, and check that there are no abnormal sounds or vibrations during idling. Refer to page 12 (7. Making test run)

Operations without conducting a test run could cause bodily injury.

- **Be careful of your surroundings when working in high places.**

When working in high places, make sure there are no people below.

Be careful not to catch the power cord on anything.

Be careful not to drop the machine or any materials. They may cause an accident.

- **Install the power cord and the water hose to avoid interference with working area.**

Make sure the power cord and the water hose do not interfere with working area.

## Application

Grinding, sanding and polishing the corners of glass and natural stone.

Grinding, sanding and polishing the straight edge of glass and natural stone.

Grinding, sanding and polishing the bevel edge of glass and natural stone.

## Specifications

Working power supply:	Single-phase AC, 50/60 Hz
Voltage:	115v (AEP-458) 220v (AEP-258)
Motor:	Single-phase, series commutator motor
No load:	2,000 r.p.m.
Continuous operation:	30 minutes
Weight:	5 lb/2.27 kg
Cord:	23 ft / 7m vinyl insulated three-conductor power cord with a grounding clip

## Part Names:

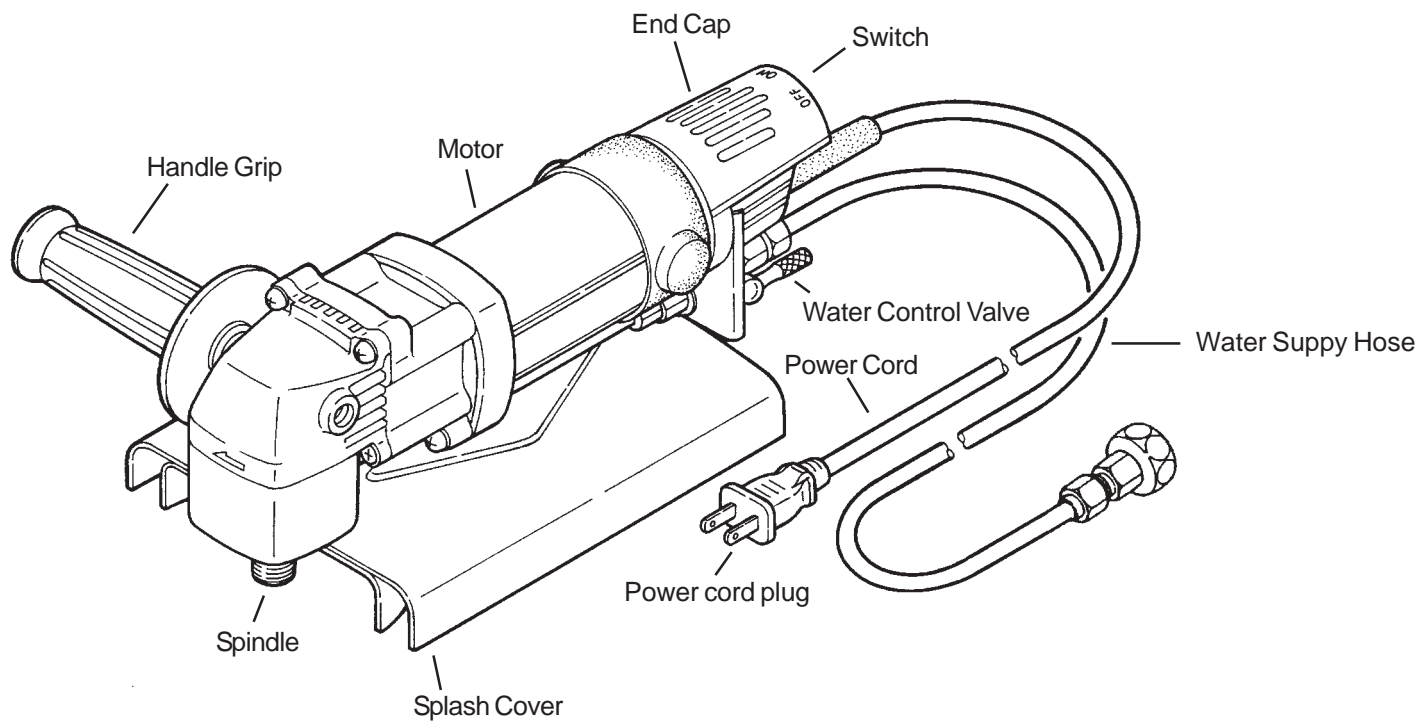


Figure-1



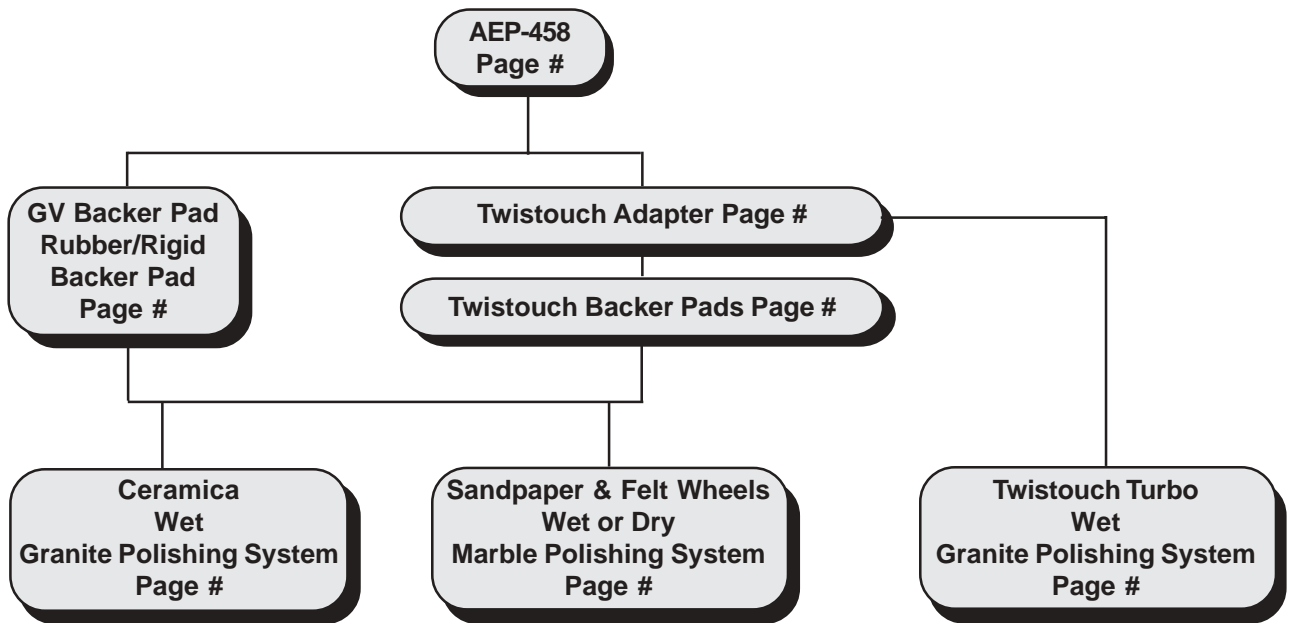
## Standard Accessories:

Side Handle.....	1pc.
17 mm Wrench.....	1pc.
26mm Wrench.....	1pc.
15 Amp Ground Fault Interrupter.....	1pc.
Complete Water Supply Hose.....	1pc.
Splash / Safety Guard.....	1pc.
Carbon Brush.....	1pc.



# ALPHA HAND POLISHING SYSTEM

The **Alpha Wet Polishing System** offers high quality, hand held, water-fed power tools to cover most common hand polishing applications in the stone and tile industries. High gloss polishes are easily achieved while reducing harmful dust and increasing safety.



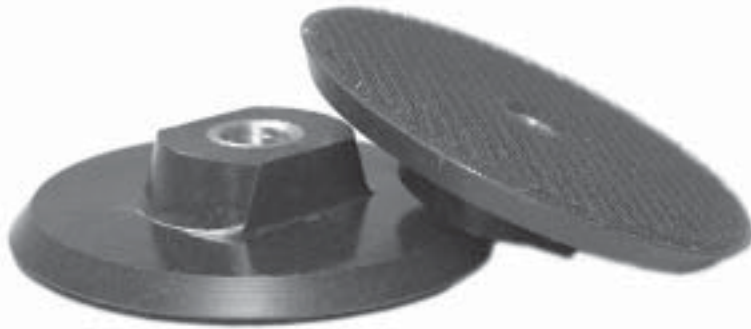
Alpha Polishing Selection Chart							
Application		Bullnose	Flat Edge Polish	Flat Surface	Curves Sinkholes	Granite (Wet)	Marble (Wet or Dry)
Product Line	Page #	Use with either AEP-458 or AIR-658					
Ceramita	12	HR	R	NR	HR	HR	R (Hard Marble)
Twistouch Turbo	13	NR	HR	HR	NR	HR	R (Hard Marble)
Sandpaper (Marble)	13	HR	HR	R	HR	NR	HR
Felt Wheel (Marble)	14	HR	HR	R	HR	NR	HR Wet
Flexible backer Pad	10	HR	R	NR	HR	HR	HR
Rigid Backer Pad	10	NR	R	HR	NR	HR	HR
Twistouch Backer Pad	11	HR	HR	NR	HR	HR	HR
Twistouch Double Magic	11	HR	NR	NR	HR	HR	HR
PVA*	14	HR	R	NR	R	NR	HR Dry

**Key:** HR = Highly Recommended      R = Recommended      NR = Not Recommended

\*PVA Quick must be used dry. It can be used on the AEP-458 without water

Please refer to the above chart and cross-reference to the page number for additional information on a specific product group. If your application is not mentioned or you have a question concerning a product, please contact the Technical Information Line at 1-800-648-7229. You may also access Technical Notes from our Fax-On-Demand by dialing 1-888-29-ALPHA.

## ALPHA RIGID BACKER PADS



Alpha Professional Tools first introduced rubber backer pads with the AEP-458 electric polisher to promote the concept of wet polishing, which became the accepted method of polishing. Alpha recognized the need to add a rigid version of this backer pad to its product line for the straight edge or flat surface polishing applications. We realized that Ceramica, with a flexible backer pad, was too flexible for these applications and produced wavy finishes. **The Rigid Backer Pads** served to resolve the wavy finish by keeping the Ceramica flat to the polished surface. Although not the best alternative compared to Twistouch Turbo for this

application, fabricators and tile contractors still use it with good results. Restoration workers find that the rigidness of the pad enables them to work in small areas such as corners or staircases. Large machine manufacturers began to recommend flexible diamond discs for use on their automatic edge polishing machines specifically for the bullnose application using the **Alpha Rigid Backer Pad**. Velcro backed like the flexible pads, they also accept Ceramica, Sandpaper, and Felt Wheels. The **Rigid Backer Pad** reduces distortion on the surface and wavy results on straight edges. Available in 3, 4 and 5-inch sizes, the **Rigid Backer Pad** is exclusive to Alpha Professional Tools. It comes in the standard 5/8-11 thread commonly found on most polishing tools today. Some metric sizes are available on request. Super rigid and flat, there is no other backer pad like this.

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## ALPHA RUBBER BACKER PADS



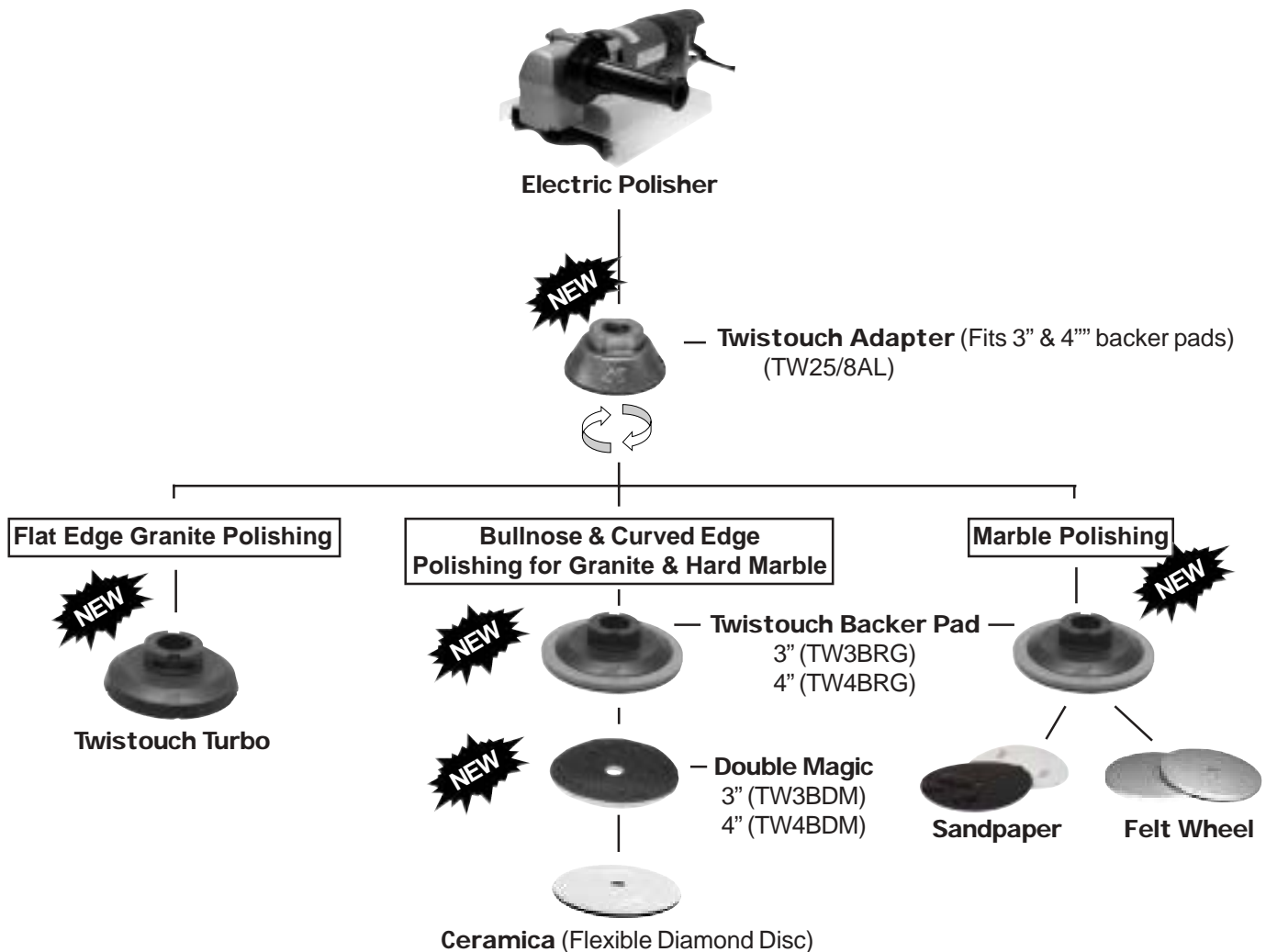
The **Alpha Rubber Backer Pads** were developed as a part of the wet polishing system that Alpha introduced to the North American markets. This wet polishing system quickly became the accepted method of polishing. **The Alpha Rubber Backer Pad** proved to be very durable and soon became the backer pad of choice among fabricators, tile contractors, monumentalists and restoration workers. The **Alpha Rubber Backer Pads** are Velcro™ backed and will accept Ceramica, Sandpaper and Felt Wheels. All users of polishing equipment will love the quality and

life of these backer pads. Extremely flexible, these backer pads are ideally suited for tough contours and inside curves. This allows the user to get in tight corners with ease. Available in 2, 3, 4, and 5-inch versions, these pads come with the standard 5/8-11 thread, commonly seen on most of the polishing tools in use today. Some metric sizes are available on request. Whether you are a fabricator, tile installer, monumentalist or a restoration worker, **Alpha Rubber Backer Pads** are for you. Highly resistant to the rigors of daily use, these flexible backer pads are the best on the market.

# ALPHA TWISTOUCH SYSTEM

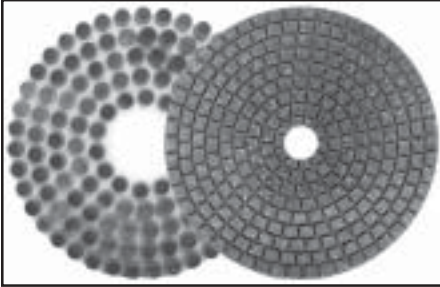
The New **Alpha Twistouch System** is a safe and long lasting polishing system that is quick and easy to use. The **Twistouch System** will increase performance and improve productivity, saving you time and money. The **Twistouch Adapter** is specially designed to accept **Twistouch Turbo** and **Twistouch Backer Pads**, which accept velcro™ backed accessories. The **Alpha Twistouch System** has everything necessary for all of your hand held polishing needs.

## TWISTOUCH ADAPTER



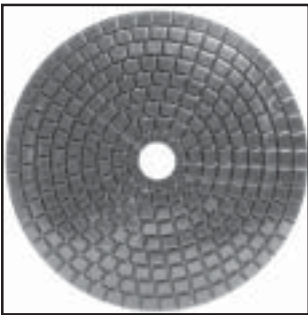
# ALPHA CERAMICA THREE PART SYSTEM

Alpha Ceramica is a three part system for polishing granite, hard marble and porcelain ceramics. Utilizing the best grade industrial diamonds and the best bond materials, Alpha Ceramica is sure to provide the best possible finish on your polished stone.



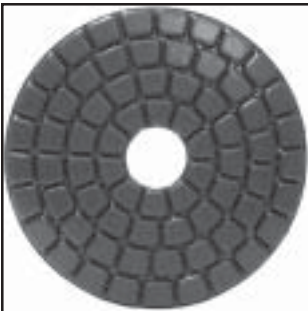
## Part 1: *Ceramica Vitrified and Ceramica Metal*

- Long lasting and aggressive design.
- Rigid or flexible depending upon application requirements.
- Use for light shaping work, smoothing and preparing for the polishing process.



## Part 2: *Ceramica Resin*

- Fine grade diamonds are heat sintered in a hard resin bond within a flexible matrix.
- Each grit covers the previous grit and through the process closes the pores for a natural polish.
- After the last grit, a solid natural polish is achieved.



## Part 3: *Ceramica Buff*

- Super fine abrasive type disc that brings out a deep glossy reflection with a mirror finish.
- Use in place of messy polishing powders and dangerous chemicals for final polishing.

Key: NR = Not Recommended    R = Recommended    HR = Highly Recommended

Alpha Ceramica is designed for a variety of applications and can be used in the polishing shop and at the job site. A long time standard in the fabrication area, there are no other systems with the same capability for a deep glossy finish.

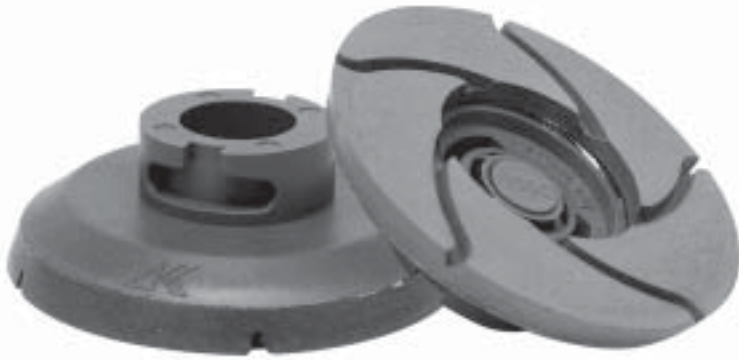
APPLICATION	VITRIFIED	RESIN	METAL
Ogee Edge	NR	R	HR
Undermount Sink Hole	NR	R	HR
Inside Corners	NR	R	HR
Bull Noses	HR	R	R

PERFORMANCE	VITRIFIED	RESIN	METAL
Durability	HR	R	HR
Flexibility	R	HR	HR
Cutting	HR	R	HR

POLISHING AREAS	VITRIFIED	RESIN	METAL
Concave	R	HR	HR
Convex	HR	R	R
Flat	R	NR	HR



## ALPHA TWISTOUCH TURBO



New **Alpha Twistouch Turbo** works as part of the **Alpha Twistouch System** that replaces Alpha Turbo. The Alpha “Original” Turbo discs were a result of many years of research for a series of diamond grits specifically designed to polish flat granite areas. Before Turbo discs existed, hand polishing of flat granite was done with Ceramica – a flexible diamond disc. Although performance was acceptable, most often a wavy finish was obtained due to the flexibility of the Ceramica discs. Alpha “Original” Turbo discs resolved this problem; however, the Velcro™ made disc removal difficult

and often wore out before the disc. **Alpha Twistouch Turbo** improves this popular polishing disc. It is now safer and easier to use for flat granite polishing. Applications such as Straight Edge Polishing, Scratch Removal, Floors (near walls, corners and staircases), Checks and Washes on Monuments, Chamfered Edges, and Drain Boards can be done with ease using **Alpha Twistouch Turbo**. Fabricators, monumentalists and restoration workers will love the results they obtain by using **Alpha Twistouch Turbo**. The advanced “twist and lock” design gives the user better control during polishing, which allows for less operator fatigue and better end results. Grits are easily changed thus increasing production capability. In addition to the original selection of grits, we have added final buff discs to the **Alpha Twistouch Turbo** series, which will improve your final polish results on any flat granite surface. Used as a wet polishing system, **Alpha Twistouch Turbo** is a welcomed improvement for flat granite polishing applications.

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## ALPHA SANDPAPER “For Marble Polishing”



**Alpha Sandpaper discs** consist of a waterproof Velcro™ backed material combined with a silicon carbide abrasive, which is the perfect combination for use on marbles and softer types of natural stone. Marble fabricators find **Alpha Sandpaper** to be effective and durable. Tile contractors find **Alpha Sandpaper** to be very adaptable to onsite work and easy to use. Restoration workers can polish wide areas quickly without any hassle or difficulty. **Alpha Sandpaper** is waterproof sandpaper that resists clogging when used wet thus extending

the life of the disc. The discs can be used dry if necessary and are very durable. The Velcro™ makes disc changes simple. Silicon Carbide is the abrasive of choice that is recommended for sanding and polishing marble, travertine, terrazzo and onyx. **Alpha Sandpaper** can also be used to polish glass, metal and wood.

For an extra high glossy finish, use the Alpha Felt Wheel with a buffing compound to finish the polishing process.

## ALPHA FELT WHEELS



*The Alpha Felt Wheel* is a very popular material for the final buff process in stone fabrication. **Alpha Felt Wheels** are Velcro™ backed buffing wheels designed for use with polishing powders, polishing pastes, and polishing bars to bring out a deep glossy finish on marble and delicate granite edges such as ogees & bullnoses. Marble fabricators love the luster they obtain. Monumentalists like the durability of the **Alpha Felt Wheel**. Tile contractors love the glossy finish they can present to their customers. We designed **Alpha**

**Felt Wheels** specifically to hold up to the acidic contents of most polishing compounds and the heat that is typically generated during the final polishing process. **Alpha Felt Wheels** are ¼ inch thick and have the perfect degree of hardness verses softness. These factors combined with the easy use of the Velcro™ backing, make **Alpha Felt Wheels** the best available final polishing disc for marble.

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## ALPHA PVA QUICK CHANGE STYLE “Marble Edge Polishing System”



**Alpha PVA Quick Change System** is a low speed version of the original “Makita” style PVA and is designed for use on an aluminum snail-lock backer plate specifically developed for low speed polishing tools such as the AEP-458 and the AIR-658. **Alpha PVA Quick Change** will work on all of the same applications that the “Makita” style PVA will, with the same excellence and quality. Marble shops, tile installers or anyone else that already has access to a low speed-polishing tool will find that the **Alpha PVA Quick Change system** will speed up their productivity. The aluminum backer plate is attached to the polishing tool and each of the pads has a snail lock adapter. The adapter simply fits into place and locks on by a twisting motion. To remove the pads simply untwist and remove, then replace with the next grit. This “Quick Change” process saves time, increases productivity and **Alpha PVA Quick Change** is

an exclusive, revolutionary product that will enhance any marble crafter’s shop.

## Preparation before starting a job

Before using the machine, be sure to complete the following preparations.

### 1. Installing a ground fault circuit interrupter. (GFCI)

To prevent electrical shocks, be sure to install a ground fault circuit interrupt or between the main power supply and the cord of the machine.

### 2. Complete grounding

The machine should be thoroughly grounded by attaching the grounding clip on the power cord to a known ground.

**Note to the user:** A GFCI must be used when this machine is used anywhere in the damp environment, or when it is used with a highly conductive liquid like water, or when it is used on metal plates, steel frames or platens.



## DANGER

Before using the machine, be sure to ground it. Never connect the ground lead to a gas pipe. This is very dangerous.



Be sure to connect the ground lead.

### 3. Organize the work area

Before beginning operations, make sure that the work area conditions are well organized for grinding safely.

## Preparations before operation



## WARNING

Before using the machine, check the following. Items 1 - 5

1. Rubber gloves and waterproof safety boots should always be worn.  
Be sure to wear rubber gloves and waterproof safety boots. If they are worn, cracked or have any holes in them, replace them. Otherwise, you may receive an electrical shock.
2. Check the working voltage.  
Be sure the voltage specified on the nameplate is the voltage available at the outlet. If the machine is used with higher voltage than specified, the motor will burnout. This machine cannot be used with a direct voltage source or with a portable generator. Any attempts to do so may damage the machine or cause an accident.
3. Inspect your polishing wheels.  
Never use cracked or chipped polishing wheels.



#### 4. **Make sure that the switch is off.**

If you plug in the power cord without realizing that the switch is on, the machine will start, and may cause an accident.

When the switch lever (see “Part names”) is tilted toward the ON label, the machine is turned on.

When it is tilted toward the OFF label, the machine is turned off.

Make sure the switch lever is tilted toward the OFF label before plugging in the cord.

#### 5. **Checking the outlet**

When the plug of the power cord is inserted into the outlet and is loose or is easily pulled out, the outlet should be replaced. For such task, consult your electrician.

If the outlet is used continuously, it may overheat and cause accidents.

#### 6. **Making test runs**



#### **CAUTION**

- Before turning the switch ON, make sure that the rotating parts are not touching anything. If the switch is turned on while they are in contact with anything else, the wheel may break and it may cause injuries.
- When a new wheel is attached and the switch is first turned on, keep your body well away from the exposed sides of the wheel for a moment until the machine reaches full speed.

It is very dangerous to perform grinding operations using cracked or chipped wheels.

Before starting grinding operations, keep the wheel away from anyone nearby. Be sure to make a few test runs, to check whether there are any abnormalities.

Test run duration:

When replacing a wheel.....At least 3 minutes

When starting operations each day.....At least 1 minute

#### **How to operate**



#### **WARNING**

- When grinding operations are interrupted to replace a wheel or when you are through with a particular operation, be sure to turn off the switch.
- During operation, be sure to wear safety glasses.
- If water gets in the motor, it may shock the operator or damage the machine. When halting an operation or replacing a wheel, put the machine in a safe place where water will not be splashed on it.
- When checking the grinding condition, the rotation of wheel or the position of the wheel during operation, be sure to look through the observation port. (see fig. - 11)



Remove the plug from the outlet.



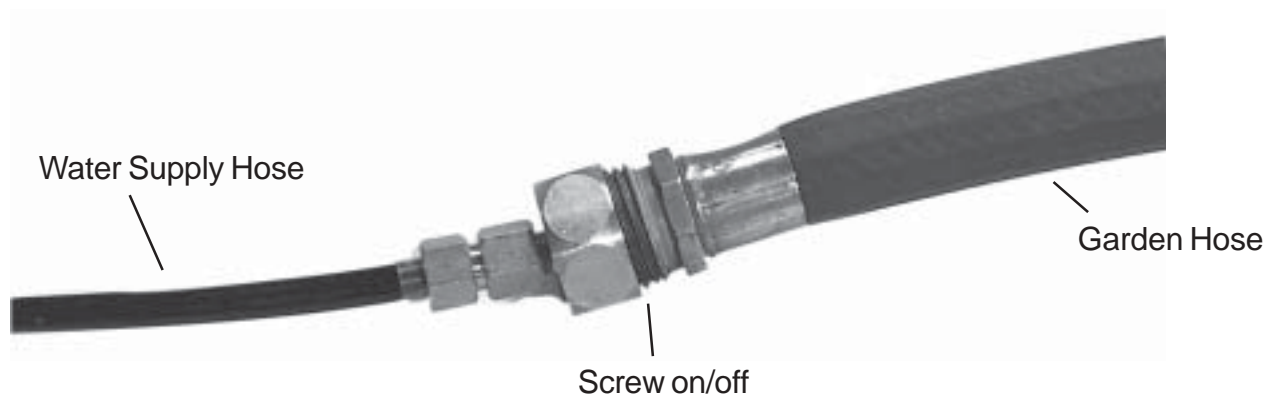
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## 1. When using the machine

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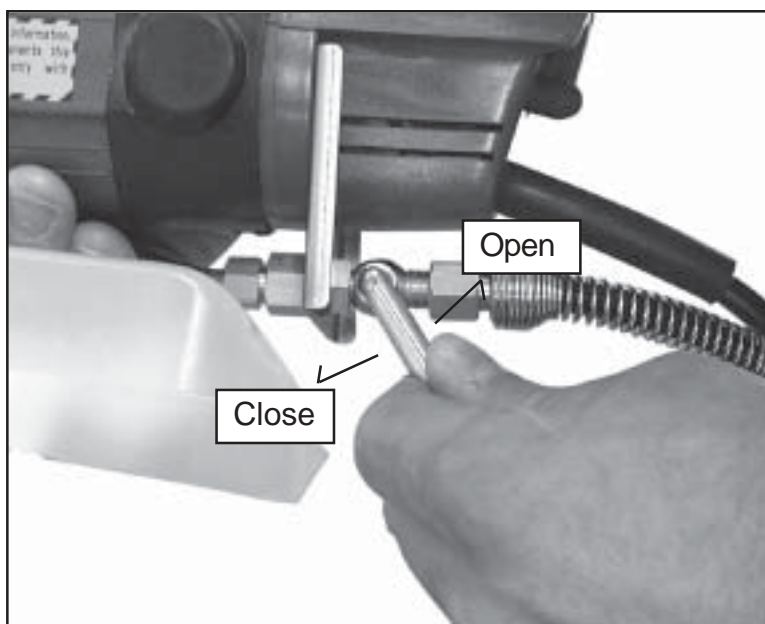
### 1. WATER SUPPLY HOSE

This hose may be connected to any faucet or garden hose. It is composed of a special kinkproof material. Replacements are available should the hose become damaged however.

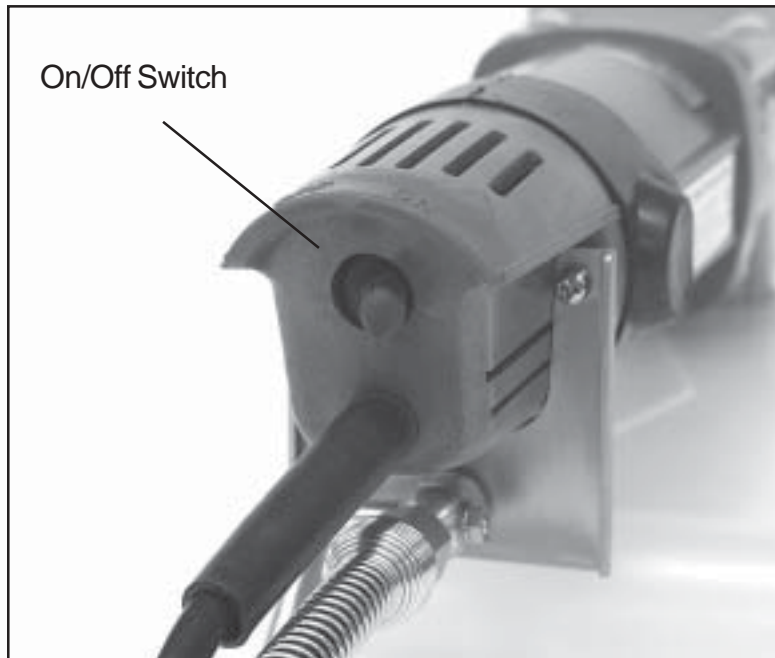


### 2. WATER CONTROL VALVE

This valve lets you adjust the flow of water through the spindle. It may be used to shup off the water entirely when changing discs. When storing the tool overnight, open the valve and drain all water from the supply hose and tool.



### 3. POWER SWITCH



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## 2. How to grind

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Make sure the water is flowing. Move the chamfer machine along the stone workpiece to grind it. Adjust the water flow, traveling speed and pressure while grinding.

### Switch operation

When the switch lever (see “Part names”) is tilted toward the ON label, the machine is turned on. When it is tilted toward the OFF label, the machine is turned off.

### How to handle wheels

After switching the machine ON, and the motor has reached its constant rpm's, begin grinding.

When the wheel first comes into contact with the workpiece, make contact slowly.

Do not apply more force onto the machine than is required. Such action may actually damage the wheel, reduce its working efficiency and shorten the machine's service life.

To change smoothly from rough chamfering to polishing, the following sequence of wheel changes is recommended.

### Precautions immediately after use

After the job is completed, turn off the switch. After the wheel stops rotating completely, put the machine in a safe place.

If your hand is released off the machine before the wheel stops rotating, it may cause an accident. Wait until the machine stops running.

## Maintenance and inspection



### WARNING

Be sure to unplug the cord from the outlet. Otherwise, the machine may start abruptly and it may cause an accident.



Unplug the power cord from the outlet.

## Rubber gloves and waterproof safety boots

Always be sure to wear rubber gloves and waterproof safety boots. If they are worn, cracked or have any holes in them, replace them.

## Checking the attaching screws

Before starting any operation, if any screws are loose.

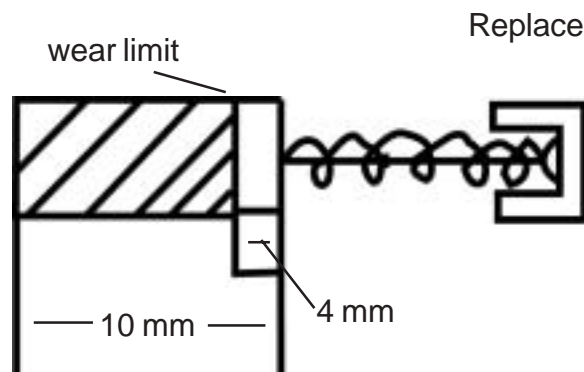
If the machine is used with loose screws, it is dangerous. Be sure to retighten them.

## Checking the carbon brush

Carbon brushes are used inside the motor and will wear out over time.

If a carbon brush is worn too much, it may cause the motor to malfunction or fail. If the length of the carbon brush reaches the wear limit (4 mm), replace it.

Keep the carbon brush clean, so that it can slide freely in the brush holder.



### Replacement procedure

When the brush cover (see “part names”) is removed using a flat screwdriver, the carbon brush can be removed.



### CAUTION

When replacing the carbon brush with a new one, be sure to use only an MG-1003 carbon brush made by Sanko (or Mitachi).

## Handling the motor

The motor windings are the heart of this machine. Pay special attention not to damage the windings and not to expose them to oil or water.



### CAUTION

If dust or dirt settles in the motor, it may cause it to malfunction.

After 50 hours operation, run the motor with no load and blow dry air in the End Cap (see “part names”).

This is effective for removing dust or dirt.

## If a problem occurs

If the machine does not operate normally, do not try to repair it by yourself. Contact your dealer or Alpha Professional Tools.



### DANGER

If this machine is disassembled, there may be a possibility of electrical shocks.  
Do not disassemble this machine.



Never disassemble the machine.

The machine you purchase may have a somewhat different appearance from the one used in the figures in this manual.

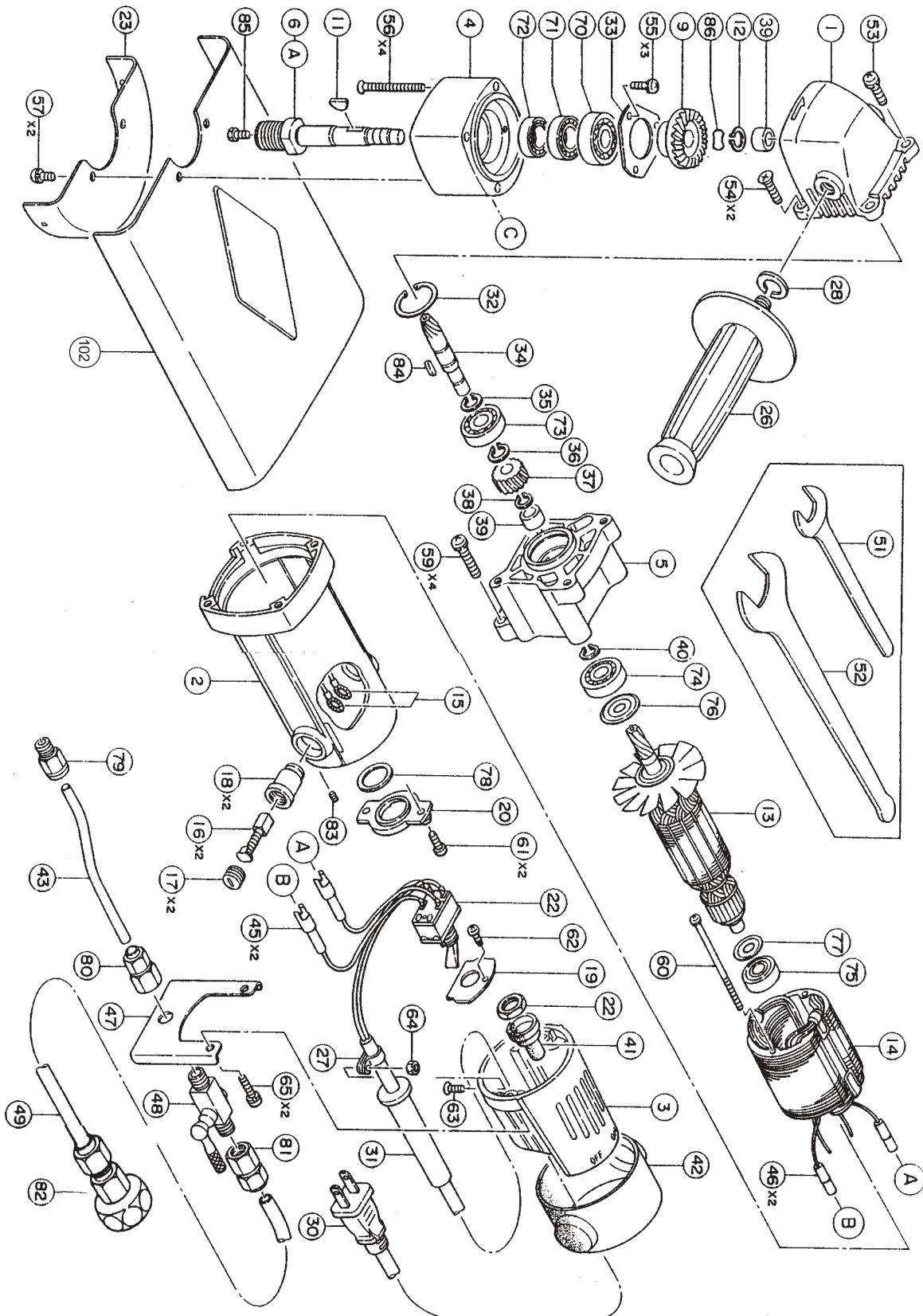
### Limited Warranty of Alpha Electric Polisher

Alpha Professional Tools warrants this product against defects in material and workmanship for a period of 90 days from the date of original retail purchase (proof of purchase required). If Alpha Professional Tools receives notice of such defects during the warranty period. Our obligation assumed under this warranty is limited to the repair or replacement of parts, without charge. This warranty does not apply to tool accessories.

For Warranty Claims: Send complete tool with all your information and details of the problem to the below address, transportation prepaid. Do not send tool accessories.

# AEP-458 Schematic Update Ver 2.0

## July 96



**PARTS LIST**  
**MODEL: ELECTRIC 458**

<b>SCHEMATIC #</b>	<b>ITEM #</b>	<b>DESCRIPTION</b>	<b>LIST PRICE</b>
1	416-01	HEAD (with sleeve)	\$ 14.36
2	416-02	BODY	\$ 23.61
3	416-03	END CASE	\$ 6.16
4	416-04	HEAD CAP	\$ 30.79
5	416-05	GEAR CASE (with sleeve)	\$ 18.99
6	416-06	GEAR SHAFT 5/8"-11 Thread	\$ 32.07
7	416-07	PROTECTOR BAND FOR DISC COVER	\$ 2.57
8	416-08	RUBBER COVER FOR DISC COVER	\$ 2.82
9	416-09	BEVEL GEAR	\$ 23.79
11	416-11	WOODRUFF KEY 3x10	\$ 0.38
13	416-13	ARMATURE	\$ 71.84
14	416-14	FIELD COIL	\$ 26.94
15	416-15	CONNECTING SPRING	\$ 0.13
16	416-16	CARBON BRUSH SET (2pc/set)	\$ 5.20
17	416-17	HOLDER CAP	\$ 0.33
18	416-18	CARBON HOLDER	\$ 2.05
19	416-19	SWITCH FITTING PLATE	\$ 0.38
20	416-20	E-SIDE PLATE	\$ 1.03
22	416-22	SWITCH SET	\$ 17.19
23	416-23	DISC COVER	\$ 8.73
26	416-26	GRIP	\$ 5.13
27	416-27	BANDY FOR CORD	\$ 0.25
28	416-28	SPRING WASHER 10MM	\$ 0.13
30	416-30	PLUG WITH CORD	\$ 8.21
31	416-31	CORD GUARD	\$ 0.65
32	416-32	STOP RING R-26	\$ 0.65
33	416-33	BEARING FITTING PLATE	\$ 0.65
34	416-34	PINION GEAR SHAFT	\$ 24.12
35	416-35	STOP RING S-10	\$ 0.13
37	416-37	GEAR	\$ 13.08
38	416-38	STOP RING S-8	\$ 0.13
39	416-39	BUSHING	\$ 2.50
40	416-40	STOP RING S-9	\$ 0.38
41	416-41	SWITCH COVER	\$ 0.52
42	416-42	RUBBER HOLDER COVER	\$ 3.08
43	416-43	TUBE	\$ 10.50
45	416-45	CONNECTOR W	\$ 0.65
46	416-46	CONNECTOR M	\$ 0.13
47	416-47	COCK FITTING PLATE	\$ 3.33
48	416-48	WATER CONTROL COCK	\$ 15.39
49	416-49	WATER HOSE	\$ 31.50
51	416-51	STOP SPANNER 17MM	\$ 3.47
52	416-52	STOP SPANNER 26MM	\$ 6.93

SCHEMATIC #	ITEM #	DESCRIPTION	LIST PRICE
53	416-53	SET SCREW M5x16	\$ 0.13
56	416-56	SET SCREW M4x45	\$ 0.25
57	416-57	SET SCREW M4x10	\$ 0.13
58	416-58	BOLT M4x10	\$ 0.52
59	416-59	SET SCREW M5x25	\$ 0.13
60	416-60	SET SCREW M4x60	\$ 0.13
61	416-61	SELF TAPPING SCREW M4x12	\$ 0.25
63	416-63	SET SCREW M4x12	\$ 0.38
64	416-64	NUT M4	\$ 0.13
65	416-65	SET SCREW M4x16	\$ 0.13
70	416-70	BALL BEARING 6200DDU	\$ 4.18
71	416-71	OIL SEAL TCNY 12-27-7	\$10.26
72	416-72	OIL SEAL TC 12-22-7	\$ 9.63
73	416-73	BALL BEARING 6000DDU	\$ 7.56
74	416-74	BALL BEARING 629DDW	\$ 3.22
75	416-75	BALL BEARING 608DDW	\$ 2.95
76	416-76	DUST PLATE 629	\$ 0.33
77	416-77	DUST PLATE 608	\$ 0.33
78	416-78	SILICON RUBBER PACKING	\$ 0.85
79	416-79	TUBE FITTING 6-01M	\$ 4.50
80	416-80	JOINT TG6-1PT1/8	\$ 7.65
81	416-81	JOINT TG8-1PT1/8	\$ 3.80
82	416-82	JOINT WITH ROTARY NUT	\$13.48
83	416-83	ENAMELING SCREW	\$ 0.07
84	416-84	PARALLEL KEY 3X3X8	\$ 0.65
85	416-85	SHOWER BOLT	\$ 2.25
86	416-86	WAVE WASHER W-10	\$ 0.07
99	416-99	C-SHAPE HANDLE	\$34.00
100	416-100	GEAR SHAFT (M16 THREAD)	\$32.07
101	416-101	GEAR SHAFT (M14 THREAD)	\$32.07
102	416-102	SPLASH GUARD	\$ 5.08

#### Reference Guide when ordering parts

##### Part number Changes

Schematic #12 (Stop Ring S-10)	use 416-35
Schematic #36 (Stop Ring S-10)	use 416-35
Schematic #55 (M4x10 Screw)	use 416-57
Schematic #62 (M4x10 Screw)	use 416-57
Schematic #10 (Bushing)	use 416-39
Schematic #54 (M5x16 Set Screw)	use 416-53



## DECLARATION BY THE MANUFACTURER

(amended directive 89/392/EEC - Annex II A)

Name of manufacturer: Alpha Professional Tools

Address of Manufacturer: 250 Braen Avenue  
Wyckoff, NJ, 07481

Herewith declares that:

ELECTRIC TOOL: "Electric Polisher"

Make: Alpha Professional Tools

Type: AEP-458 / AEP-258

Serial No: between **xxxxx** and **yyyyy** inclusive.

- does comply with the provisions of the "Machinery" Directive (Directive 89/392/EEC amended by Council directive 91/368/EEC, 93/44/EEC and 93/68/EEC)

And furthermore declares that:

- The following (parts/clauses of) harmonized standards have been applied:

On request of Sanwa Kenma Kogyo Co., Ltd., the compliance of the model with the requirements of the EC Machinery Directive was established by AIB-VINCOTTE INTER, Avenue A. Drouart 27-29, B-1160, Brussels, Belgium (notified body under the number 26 for machinery Listed in annex IV of the EC Machinery Directive), acting here as competent body.

Wyckoff, NJ U.S.A.

October. / . 1996

DIRECTOR. Head office: Uji Factory

Alpha Professional Tools