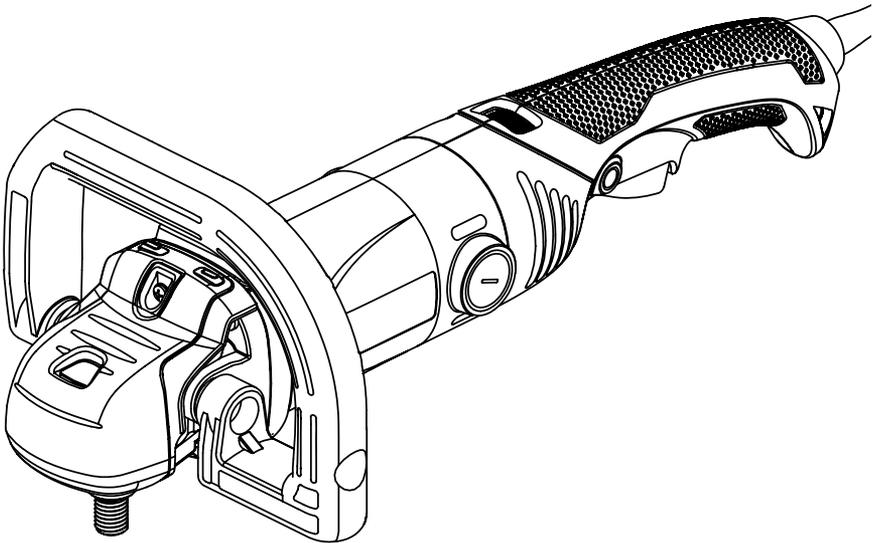


# Alpha<sup>®</sup> Variable Speed Rotary Polisher Instruction Manual



**Model No.: VDP-700**

**Version 1**

WARNING: To reduce the risk of injury, user must read and understand instruction manual!

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

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# INTRODUCTION

Thank you for purchasing the Alpha® Variable Speed Rotary Polisher. Please read this instruction manual thoroughly to ensure safety and correct use of the rotary polisher. Keep this manual in a place where operators can access it easily whenever necessary.

## ► ABOUT THE SYMBOLS

According to the hazard level, all safety notes in this manual are classified into “DANGER”, “WARNING”, and “CAUTION”.

 **DANGER!** Death or serious personal injury is imminent when handling this rotary polisher incorrectly.

 **WARNING!** There is a possibility of death or serious personal injury when handling this rotary polisher incorrectly.

 **CAUTION!** There is a possibility of personal injury or property damage when handling this rotary polisher incorrectly.

**NOTE:** *In some situations, failing to observe WARNING notes could result in death or serious personal injury. Be sure to read and observe the safety notes to ensure safety and correct use of the rotary polisher.*

## ELECTRICAL SYMBOLS

The following show the symbols used for tool.

V	Volts
A	Amperes
W	Watts
Hz	Hertz
~ or a.c.	Alternating Current
n0	No load speed
.../min	Revolution or reciprocation per minute
kg	Kilograms
mm	Millimeters
lbs	Pounds
	Protective Earth

## CAUTION

The following are important notes for products, operation, and maintenance applicable to this rotary polisher.

### GENERAL SAFETY RULES

1. **KNOW YOUR POWER TOOL.** Read owner's manual carefully. Learn its applications and limitations as well as specific potential hazards particular to this tool.
2. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
3. **AVOID DANGEROUS ENVIRONMENTS.** Keep work areas as dry as possible. Do not use tool in presence of flammable liquids or gases. Keep the area well lit.
4. **KEEP CHILDREN AND VISITORS AWAY.** All visitors should be kept a safe distance from the work area. Keep out of reach of children.
5. **DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was designed.
6. **WEAR PROPER APPAREL.** Do not wear loose clothing or jewelry as it can get caught in moving parts. Rubber gloves and insulated non-skid footwear are recommended. Wear protective covering to contain long hair.
7. **WEAR PROPER EYE PROTECTION.** All users and bystanders must always wear proper personal eye protection which conform with ANSI/ISEA Z87.1 (CAN/CSA Z94.3). Also use a face or dust mask if operation is dusty. Always wear certified safety equipment.
8. **WEAR PROPER EAR PROTECTION.** All users and bystanders must wear proper personal ear protection which conforms with ANSI S12.6 (S3.19) hearing protection.
9. **WEAR PROPER RESPIRATORY PROTECTION.** All users and bystanders must wear proper personal respiratory protection. Always use NIOSH/OSHA approved respiratory protection appropriate for the dust exposure.

**Warning:** Some dust created by power sanding, sawing, grinding, drilling, polishing and other construction activities contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

**Some examples of these chemicals are:**

- Lead from lead-based paints
- Crystalline silica from bricks, cement and other masonry products, and
- 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, work in a well ventilated area, and work with approved safety equipment, such as dust masks that are specially designed to filter out microscopic particles. To familiarize with the risks associated with a material, consult with your employer, manufacturer/supplier and government agencies regarding the hazards of the materials and their recommendations to protect yourself.

10. **ALWAYS SECURE WORK PIECE.** Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate tool.
11. **DON'T OVERREACH.** Keep proper footing and balance at all times.
12. **DISCONNECT TOOLS WHEN NOT IN USE.** Always disconnect tool before servicing when changing blades.
13. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form a habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
14. **MAINTAIN TOOLS WITH CARE.** Keep tools clean at all times for best and safest performance. Follow instructions for lubricating and changing accessories. Keep handles dry, clean and free of oil or grease. Inspect moving parts for alignment and binding as well as for breakage and improper mounting.
15. **AVOID ACCIDENTAL STARTING.** Do not carry a "connected" tool, or make adjustments, or change discs without making sure the tool is disconnected from the power supply.
16. **USE ONLY RECOMMENDED ACCESSORIES.** The use of any accessories other than what is listed or recommended for this particular tool may be hazardous.
17. **KEEP HANDS AWAY FROM ALL MOVING PARTS.**
18. **USE SIDE HANDLES.** Supplied with tool for control and safety.
19. **STAY ALERT.** Watch what you are doing and use common sense. Do not operate tool when you are tired, or under the influence of medication or alcohol.

## ► **ELECTRICAL SAFETY**

- **Make sure the extension cord is in good condition.** When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating.
- **Do not abuse the cord.** Never use the cord to carry the tools or pull the plug from an outlet/receptacle. Keep cord away from heat, oil, sharp edges, or moving parts. Replace damaged cords immediately. Damaged cords increase the risk of electric shock or fire.
- **When operating a power tool outside, use an outdoor extension cord marked "W-A" or "W".** These cords are rated for outdoor use and reduce the risk of electric shock.

## ► **TOOL USE AND CARE**

- **Use clamps or other practical ways 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.
- **Inspect for and remove all foreign objects from workpiece before polishing.** Following this rule will reduce the risk of serious personal injury.
- **Avoid accidental starting. Be sure switch is off before plugging in.** Carrying

tools with your finger on the switch or plugging in tools that have the switch on, invites accidents.

- **Keep hands away from polishing area.** Following this rule will reduce the risk of cuts, scrapes, or serious personal injury.
- **Hold tool by insulated gripping surfaces when performing an operation where the rotary polisher may contact hidden wiring or its own cord.** Contact with a “live” wire will make exposed metal parts of the tool “live” and shock the operator.
- **Do not force tool, use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.
- **Do not use tool if switch does not turn it on or off.** Any tool that cannot be controlled with the switch is dangerous and must be repaired.
- **Disconnect the plug from power source before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.
- **Check for damaged parts.** Before further use of the tool, check the guard or other part to determine if it is damaged or that it will operate properly and perform its intended function. Check for alignment of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center unless otherwise indicated elsewhere in this instruction manual. Have defective switches replaced by authorized service center.
- **Store idle tools out of the reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
- **Know your power tool. Read operator’s manual carefully.** Learn its applications and limitations, as well as the specific potential hazards related to this tool. Following this rule will reduce the risk of electric shock, fire, or serious injury. Refer to them frequently and use them to instruct others who may use this tool. If you loan someone this tool, loan them these instructions.

## ►SERVICE

- Tool service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel could result in a risk of injury.
- When servicing a tool, use only identical replacement parts. Follow instructions in the Maintenance section of this manual. Use of unauthorized parts or failure to follow maintenance instructions may create a risk of electric shock or injury.

## ►SPECIFIC SAFETY RULES

1. **Accessories must be rated for at least the speed recommended on the tool warning label.** Wheels and other accessories running over rated speed can fly apart and cause injury.
2. **Hold tool by insulated gripping surfaces when performing an operation where the rotary polisher may contact hidden wiring or its own cord.**

Contact with a “live” wire will make exposed metal parts of the tool “live” and shock the operator.

3. **Always wear safety glasses with side shields.** Everyday eye-glasses have only impact resistant lenses; they are NOT safety glasses.
4. **Protect your lungs.** Wear a face or dust mask if the operation is dusty.
5. **Protect your hearing.** Wear hearing protection during extended periods of operation.
6. **Inspect tool cords periodically and if damaged, have repaired at your nearest Factory Service Center or other Authorized Service Organization.** Constantly stay aware of cord location.
7. **Check damaged parts.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function.
8. **Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation.** A guard or other part that is damaged should be properly repaired or replaced by an authorized service center.
9. **Do not abuse cord.** Never carry the tool by the cord or yank it to disconnect it from the receptacle. Keep cord away from heat, oil, and sharp edges. Following this rule will reduce the risk of electric shock or fire.
10. **Make sure your extension cord is in good condition.** When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating.
11. **Inspect for and remove all foreign objects from workpiece before polishing.** Follow this rule will reduce the risk of serious personal injury.
12. **Drugs, alcohol, medication, Do not operate tool while under the influence of drugs, alcohol, or any medication.** Follow this rule will reduce the risk of electric shock, fire, or serious personal injury.
13. **Keep hands away from polishing area.** Follow this rule will reduce the risk of cuts, scrapes, or serious personal injury.
14. **Save these instruction.** Refer to them frequently and use them to instruct others who may use this tool. If you loan someone this tool, loan them these instructions.

## ►USE PROPER EXTENSION CORDS

Make sure the extension cord is in good condition. Replace or repair damaged or worn cord immediately. When using an extension cord, be sure to use one heavy enough to carry the current that the tool will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Below table shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

Ampere Rating		Total length of cord in feet (120V)		
		25ft	50ft	100ft
More Than	Not More Than	AWG		
0	6	18	16	16
6	10	18	16	14
10	12	16	16	14
12	16	14	12	Not Recommended

 **DANGER!**

- 1. Check the working voltage.** Be sure the voltage available at power outlet matches specified voltage on the name- plate. If the polisher is used with higher voltage than specified, the motor will burnout. Any attempts to do so may damage the polisher or cause an accident or injury.
- 2. Hold the polisher tightly at start-up.** Failure to do so may cause an injury due to high impact at initial start up.
- 3. Stop using the polisher immediately when noticing any malfunctions or any suspicious abnormal noises.** Turn the power switch OFF and contact your dealer or Alpha Professional Tools® for repair.
- 4. Handle the polisher with care.** If you accidentally drop the polisher, do not use it until checking that it is not cracked, deformed, or damaged in any way.
- 5. Do not pour water or any liquids onto or inside the polisher.** It may cause electric shocks.
- 6. Do not hold the polisher in a vice.**
- 7. Do not touch any rotating parts.** Never touch the polishing disc of the polisher during operation with your hands.
- 8. Do not leave the disc while spinning on the bench, floor or surface of your workpiece.** It may cause an accident or injury.
- 9. Attach the backer pad and accessories correctly by following the**

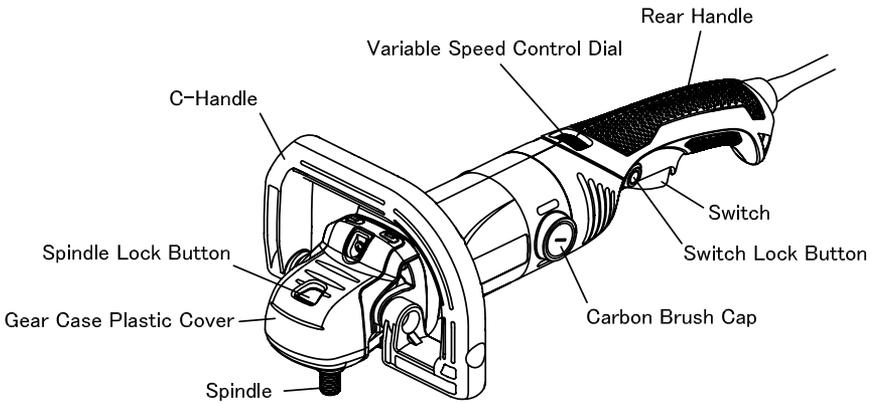
**procedure in this instruction manual.** Attaching the backer pads and accessories incorrectly may cause an accident.

- 10. Observe any suspicious abnormal noises when a polishing disc is attached for the first time and polisher is turned ON.** It may cause bodily injury if the polishing disc flies off.
- 11. Do not touch the backer pad while spinning.** The backer pad spins very fast and can cause injury.
- 12. Be careful of your surroundings when working in high places.** When working in high places, make sure there are no people below. Do not strap the power supply cord on anything or drop the polisher or any materials, otherwise, It may cause an accident.

### ► **LAWS AND REGULATIONS OF NOISE LEVELS**

Please observe local laws and regulations regarding noise level in order to avoid disturbing surrounding areas. Install a soundproof wall if required to comply with the local laws and regulations.

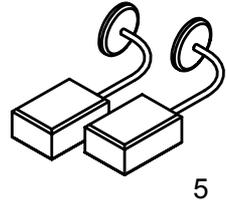
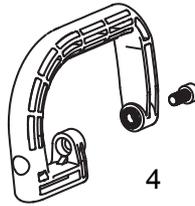
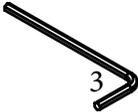
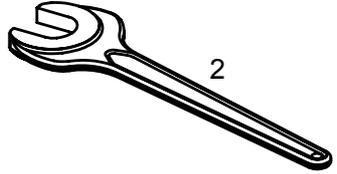
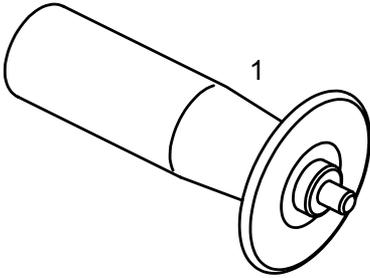
# VDP-700 OVERVIEW



## ► SPECIFICATIONS:

Model .....	VDP-700
Rating .....	120 Volts
Amperage .....	11.0A
Power.....	1250W (Rated), 1900W (Maximum)
No Load Speed (Variable).....	700~3500 RPM with Soft Start
Weight.....	6.4 lbs/2.9kgs
Spindle.....	5/8"-11
Power Supply.....	Single-phase AC, 50/60 Hz
Plug Type.....	A (120V)
Cord .....	25ft / 7.6m (14 AWG)
Backing Plate Size.....	7" / 178mm (Maximum)
Polishing Disc Size .....	9" / 228mm (Maximum)

# EQUIPMENT INCLUDED



## ► COMPONENTS

- 1. Side Handle ..... 1 pc
- 2. Open-End Wrench / 17mm ..... 1 pc
- 3. Hex. Wrench / 8mm ..... 1 pc
- 4. C-Handle w/ Mounting Screws..... 1 pc
- 5. Extra Carbon Brush Set ..... 1 pc

# MAINTENANCE

## ► *PERIODIC*



Preventive maintenance performed by unauthorized personnel may result in misplacing of internal wires and/or components which voids the warranty and could cause serious hazards. We recommend that tool service and repairs not covered in the manual be performed by an Alpha® Repair Center.

Periodic maintenance is done to check the tool and to minimize down time. These checks are done based on hours of operation and operating conditions. Operating condition can vary depending on the work surface and job being performed. If the tool is not used for a long period of time the carbon brushes should be checked and the commutator cleaned, before putting the tool back into operation.

## ► *BEARINGS AND GEARS*

To minimize your tool's down time and expensive tool repairs, it is recommended to send the tool back to an Alpha® Repair Center after about 300 to 400 hours of operation or every second carbon brush set change. The bearings should be replaced and the gears should be checked. If your tool starts to sound differently, this could be an indication of a worn bearing; continuing to use the tool in this condition could result in over heating or motor failure.

## ► *CARBON BRUSH REPLACEMENT*

Carbon brushes wear out over time, based on the polisher usage. If a carbon brush is worn out, it may cause the motor to malfunction or fail to run. Whenever the length of the carbon brush reaches the wear limit, replace with a new set.

NOTE - To maintain even wear, both brushes should be replaced at the same time.

► **REPLACING AND CHECKING THE CARBON BRUSHES**

1. Locate the Brush Holder Caps and remove.



2. Unscrew the Brush Holder Caps completely until carbon brush releases from the brush holder.



3. Check the carbon brush for wear. Replace if worn down to a 1/4" or if spring is damaged.
4. Install the new Carbon Brush with the proper alignment into the brush holder then reinstall the Brush Holder Caps.



5. Fully tighten the Brush Holder Cap back onto the Brush Holder.



# VDP-700 VARIABLE SPEED ROTARY POLISHER OPERATION

 DANGER!

## ► SWITCHING ON AND OFF

Before plugging in the tool, always check the working voltage. Be sure that the voltage specified is on the name plate.

### **Intermittent use:**

**Switching ON:** Press the trigger switch.

**Switching OFF:** Release the trigger switch

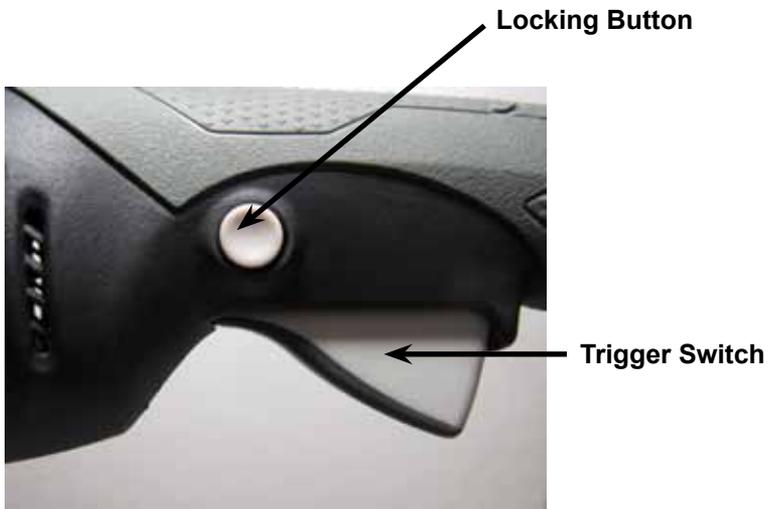
### **Continuous use:**

**Switching ON:**

Press the trigger switch and push the locking button to lock the trigger switch.

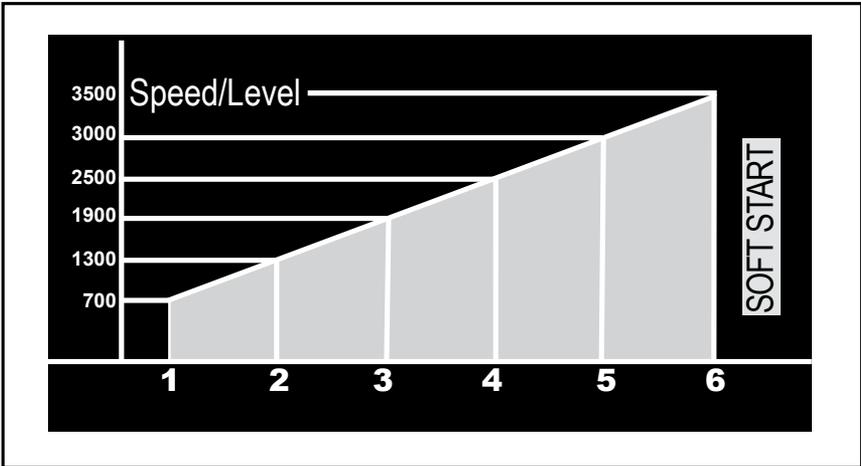
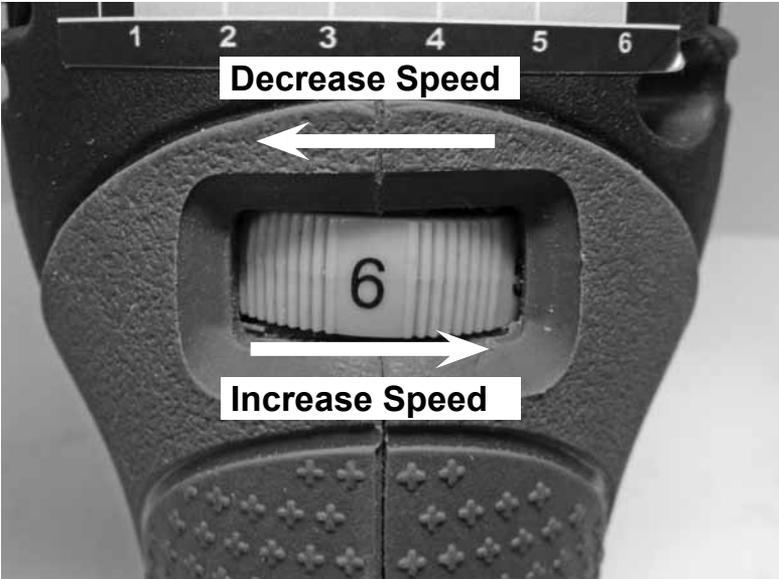
**Switching OFF:**

Press the trigger switch and the locking button will disengage.



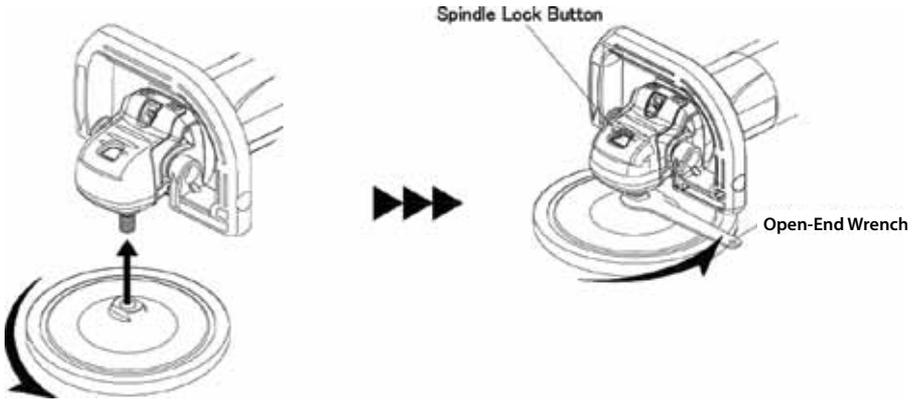
► **VARIABLE SPEED ADJUSTMENT**

The rotary polisher features a dial speed control, which controls the polisher's maximum rotations per minute. The speed will remain variable to the chosen dial setting by use of the trigger switch. Dial settings range from 1 through 6. Lower numbers correspond to lower speeds and higher numbers correspond to higher speeds. Use the setting that best suits your job. To control the speed, set the dial to the desired number.



# HOW TO ATTACH THE ROTARY BACKER PAD

The Rotary Backer Pads can be attached and removed from the spindle by the following two methods.



## ► SPINDLE LOCK

### TURN OFF AND DISCONNECT FROM POWER SUPPLY.

A spindle lock button has been provided in the gear head to prevent the spindle from rotating when installing or removing rotary backer pads. Operate the spindle lock only when the tool is turned off, unplugged from the power supply, and has come to a complete stop.

To engage the lock, depress the spindle lock button and rotate the spindle until you are unable to rotate the spindle further.

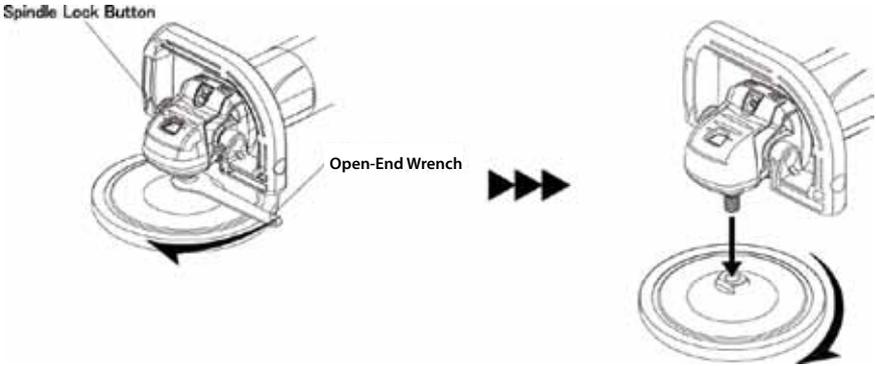
***NOTICE:*** To reduce the risk of damage to the tool, do not engage the spindle lock while the tool is operating. Damage to the tool will result and attached accessory may spin off possibly resulting in injury.

## ► OPEN-END WRENCH (17 MM)

### TURN OFF AND DISCONNECT FROM POWER SUPPLY.

Insert the Open-End Wrench onto the shaft of the spindle to prevent the spindle from rotating when installing or removing rotary backer pads.

# HOW TO REMOVE THE ROTARY BACKER PAD

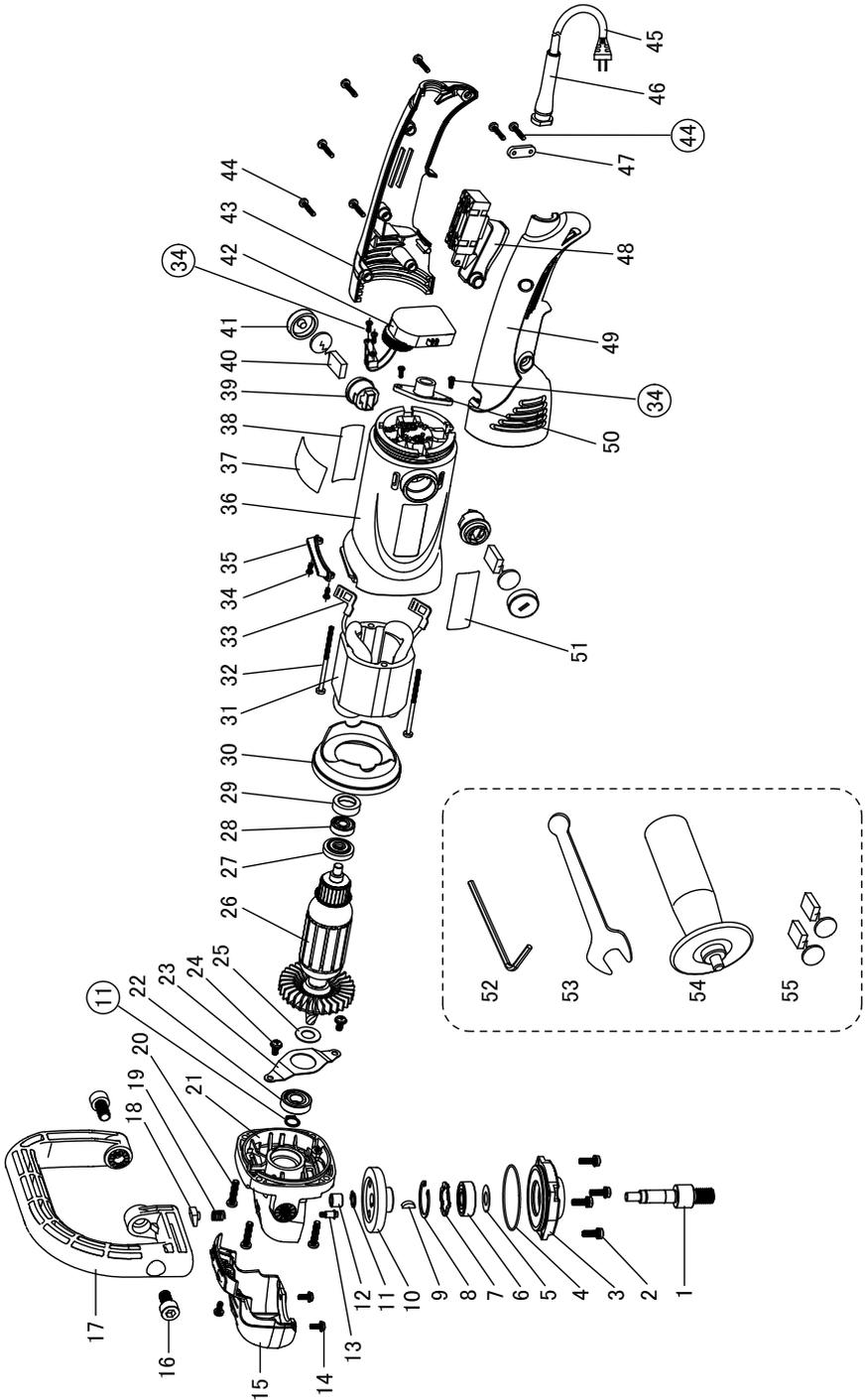


## **⚠ WARNING!**

*To reduce the risk of injury, keep the cord set away from the path of the polisher. Otherwise the cord set may become caught by pad and wrap round the spindle; this may cut through the cord and expose live wires or make the gear box electrically "live"*

Always wear safety goggles or a face shield during operation.

# ALPHA® VDP-700 SCHEMATIC



# ALPHA® VDP-700 PARTS LIST

DRAWING NO.	PART NO.	DESCRIPTION	QUANTITY
1	210145	Output Shaft 5/8"-11	1
2	210146	Screw Combo (M5x16)	4
3	210147	Gear Case Cover	1
4	210148	O-Ring	1
5	210149	Dust-Proof Washer (12x25x0.5)	1
6	210150	Ball Bearing (6201 / 2RS)	1
7	210151	Wave Spring Washer	1
8	210152	Circlip for Hole (32)	1
9	210153	Key (4x13)	1
10	210154	Gear	1
11	210155	Circlip for Shaft (12)	2
12	210156	Bushing	1
13	210157	Spindle Lock Pin	1
14	210158	Screw (M4x10)	3
15	210159	Gear Case Plastic Cover	1
16	210160	Hexagon Screw (M10x20)	2
17	210161	C-Handle	1
18	210162	Spindle Lock Cap	1
19	210163	Spindle Lock Spring	1
20	210164	Self-Tapping Screw (ST4.8x20)	4
21	210165	Gear Case	1
22	210166	Ball Bearing (6001 / 2RS)	1
23	210167	Bearing Clamp	1
24	210168	Screw (M5x10)	2
25	210169	Bearing Retainer (12x21x1)	1
26	210170	Armature	1
27	210171	Magnetic Ring (8x28x7)	1
28	210172	Ball Bearing (608 / 2RZ)	1
29	210173	Rubber Bearing Seat (608)	1
30	210174	Wind Baffle	1
31	210175	Field Coil	1

# ALPHA® VDP-700 PARTS LIST

DRAWING NO.	PART NO.	DESCRIPTION	QUANTITY
32	210176	Self-Tapping Screw (ST4.8x65)	2
33	210178	Flag Slot (4.8)	2
34	210177	Self-Tapping Screw (ST2.9x10)	6
35	210198	Support Pad	1
36	210199	Field Coil Case	1
37	210200	RPM indicator Label	1
38	210179	Data Label VDP-700	1
39	210180	Brush Holder (6.2x13)	2
40	210181	Carbon Brush 2pc set	1
41	210182	Brush Holder Cap	2
42	210183	Speed Controller Assembly	1
43	210184	Rear Hand (Right)	1
44	210185	Self-Tapping Screw (ST4.8x16)	7
45	210186	Power Supply Cord	1
46	210187	Cord Jacket	1
47	210188	Cord Clamp	1
48	210191	Switch	1
49	210192	Rear Hand (Left)	1
50	210193	Cord Clamp	1
51	210194	Brand Label VDP-700	1
52	210195	Hex. Wrench (8mm)	1
53	210196	Open-End Wrench (17mm)	1
54	210197	Side Handle	1
55	210181	Spare Carbon Brush Set (2 pc)	1

## ► ACCESSORIES AND FACTORY SERVICE

All the accessories can be purchased at a local distributor in your area. For more information concerning the Alpha® Variable Speed Rotary Polisher (VDP-700) and factory service, please contact Alpha® Professional Tools®.

### **COMPANY HEADQUARTERS & REPAIR CENTER:**

Alpha Professional Tools®

103 Bauer Drive

Oakland, NJ 07436

Hours of Operation:

8:30 a.m. – 5:00 p.m. EST

Telephone Number:

201-337-3343

Toll-Free Number:

800-648-7229

## ► WARRANTY

### **Limited Warranty of Alpha® Variable Speed Rotary Polisher (VDP-700) for USA and Canada ONLY!**

Alpha Professional Tools® warrants this product against defects in material and workmanship for a period of one year 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 Alpha® accessories. Returns within the warranty period should be sent in freight prepaid to an Authorized Warranty Service Centers.

#### **The warranty does not apply in situations where:**

- The tool has been misused, abused or improperly maintained
- Alterations or repairs were made by others
- Repairs due to normal wear and tear

Some States do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

**For Warranty Claims:** Send complete tool with all your information and details of the problem to an Authorized Warranty Repair Center, transportation prepaid. Do not send tool accessories.

**NOTE:** Any tools purchased through an unauthorized distributor are not covered under warranty.

# PRODUCT REGISTRATION CARD

Model No. **VDP-700**      Serial No. \_\_\_\_\_

Company Name: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Email: \_\_\_\_\_

Telephone: \_\_\_\_\_

Purchase Date: \_\_\_\_\_

Dealer's Name: \_\_\_\_\_

Note: Serial & Model Number must be included for proper registration.



**Alpha Professional Tools®**

**(800) 648-7229**

Register online at:

[www.alpha-tools.com/productregistration.aspx](http://www.alpha-tools.com/productregistration.aspx)

Mail or Fax to:

Alpha Professional Tools®

103 Bauer Drive, Oakland, NJ 07436

Fax: 800-286-0114

Photocopy of product registration form will be accepted.





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