

Name of manufacturer: Alpha Professional Tools

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

Herewith declares that:

ELECTRIC HAND TOOL: "Alpha Wet Polisher"

Make: Alpha Professional Tools
Type: AWP-158/AWP-214

-does comply with the provisions of the Directive 98/37EC, 89/336EEC, 73/23EEC including the subsequent amendments.

And furthermore declares that:

-The following (parts/clauses of) harmonized standards have been applied: EN292-1, EN292-2, EN60204-1, EN50 144, EN55 104, EN50 014, EN60 555 and HD400.

Year of affix CE Marking: 2002

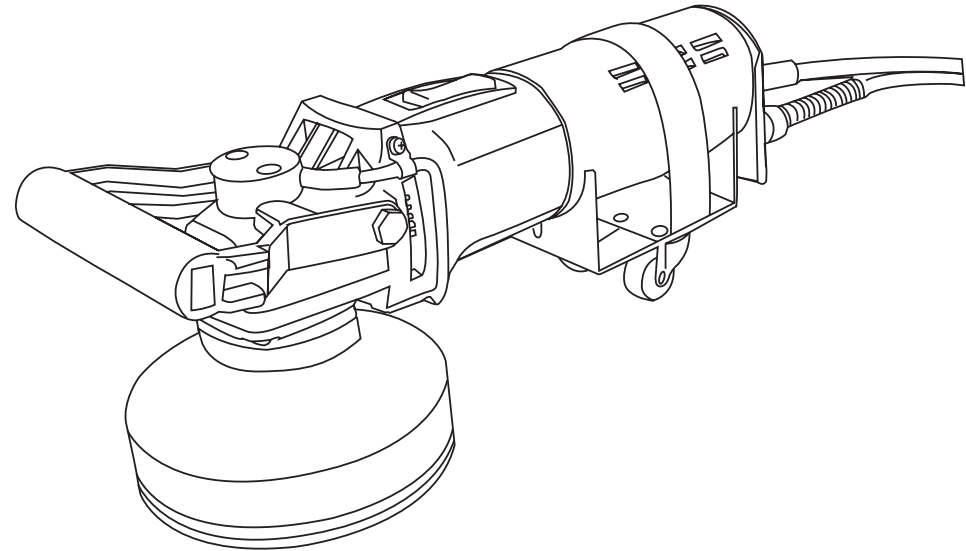
Wyckoff, New Jersey USA

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Nao Takahashi
(President)

Alpha Wet Polisher Instructional Manual



Part No: AWP-158 / AWP-214

Limited Warranty of Alpha Wet Polisher

Alpha Professional Tools warrants this product against defects in material and workmanship for a period of 180 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 address printed on the cover of this manual, transportation prepaid. Do not send tool accessories.

 **Alpha Professional Tools**[®]

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Alpha Wet Polisher Parts List

Drawing No.	Item	Quantity
41	Water pipe	1
42	Switch rod	1
43	Nut	1
44	Joint	1
45	Plinth	1
46	Gasket	2
47	Torx head screw	2
48	26MM Stop Spanner	1
49	Motor case with carbon brush holder	1
50	Sealing ring (61X1.2)	1
51	Cover	1
52	Water line mounting plate	1
53	Screw (ST3.9X20)	4
54	Water valve	1
55	Plinth	1
56	Joint	2
57	Nut	2
58	Hose protector	1
60A	Field assembly - 110V	1
60B	Field assembly - 220V	1
61	Fan guide	1
62	Bearing ring	1
63	Torsion spring	2
64	Handle (B) (Side handle)	1
65A	Cord with GFCI - 110V	1
65B	Cord with GFCI - 220V	1
66	Carbon brush	2
67	Switch	1
68	Strain relief	1
70	Flat Polishing Caster	1
71	Nut (M4)	1
72	Screw (M4X6)	1
73	Hose (8X5X3000)	1
74	Hose coupling	1
75	Gasket (24X14X3)	1
76	Box	1
77A	GFCI - 110V	1
77B	GFCI - 220V	1
78	14MM Stop Spanner	1

Alpha Wet Polisher Parts List

Drawing No.	Item	Quantity
1	Rubber guard	1
2	Set screw (M5X4)	3
3	Ring adapter	1
4	Water jet	1
5	Supporting ring	1
6	Gasket	3
7	N/A	0
8	Lens head screw (M4X12)	4
9	Gear cap	1
10A	5/8"-11 Spindle	1
10B	M14-2 Spindle	1
11	Key	1
12	Sealing ring	2
13	Ring cover	1
14	Ball bearing (6001ZZ)	1
15	Distance ring	1
16	Sealing ring (48X1.2)	1
17	Spring washer	1
18	Crown wheel	1
19	Water line clip	1
20	Sintered slide bearing	1
21	Handle (A) (C shape handle)	1
22	Lens head screw	2
23	Torx head screw (ST3.9X30)	4
24	Screw (M8X16)	2
25	Center water feed tube	1
26	Center water feed adapter	1
27	Screw (M4X25)	2
28	Hoses (8X5X4)	1
29	Gear case	1
30	Washer	1
31	Fillet of screw	1
32	Washer	1
33	Gear	1
34	Ball bearing (6000DDW)	1
35	Bearing cover	2
36A	Armature assembly - 110V	1
36B	Armature assembly - 220V	1
37	Ball bearing (607DDW)	1
38	Water line clip/small	1
39	Screw (M4X8)	1
40	Switch lever	1

Introduction

Thank you for purchasing the Alpha Wet Polisher. Please read this instruction manual thoroughly to ensure safety and correct use of the 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".



Death or serious personal injury is imminent when handling this polisher incorrectly.



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



There is a possibility of personal injury or property damage when handling this 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 polisher.



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

General Safety Notes for AWP Electric Polisher:

Before using this polisher and to prevent any accidents including: fire, electric shocks, or injury, please read carefully following safety notes posted throughout this instructional manual. After reading, please keep this instructional manual in a place where operators can access it easily whenever necessary.



1. Keep the workshop in order.
 - Leaving the workshop unorganized and cluttered could cause accidents.
2. Operating environment of the electric polisher.
 - To prevent and avoid electric shocks do not use the polisher near water or any areas with high humidity.
 - Do not use the polisher near ignitable or explosive materials such as gasoline or combustible gases.
 - Use the polisher under adequate lighting.



If dust or dirt settles inside the motor, it may cause the polisher to malfunction. After 50 hours of operation, run the motor in no load mode and blow dry air through the vents of motor body. This is effective for removing dust or dirt.

3. Cleaning the surface of the polisher.
 - Do not use paint thinner, gasoline or any flammable fluids to clean the polisher. It may cause damage to its surface. Use a dry or damp cloth with a mild detergent dissolved in water.
4. Store the polisher and parts in a safe place. Do not store the polisher in following areas.
 - Where children can reach the polisher.
 - Where it can be easily tampered with.
 - Where temperature and humidity fluctuate.
 - Where the polisher is exposed to direct sunlight.
 - Near ignitable or explosive materials.

Repair:

Although this polisher is precisely manufactured and assembled, do not try to repair it by yourself if it does not operate normally. Contact your dealer or Alpha Professional Tools for authorized repairs.

Loaner Program:

Loaner tools can be issued to temporarily replace a tool that is being returned to Alpha for repair. If more than one tool is being returned for repair, the number of loaner tools provided will be based on availability.

If a loaner tool is required, contact Alpha's Tool Department at (800) 648-7229 to receive a Loaner Tool Application. A valid credit card number must be provided as a security deposit. The credit card will only be charged if the loaner tool is not returned to Alpha within 30 days. An authorized signature is required for the credit card being used. A second signature is required as an agreement of the overall policy.

Need More Info?

24hr Technical Fax on Demand - **1-888-29-ALPHA** and request Doc# 147 or visit our website at **www.Alpha-Tools.com**.

- Check the discs before using and keep them clean.
- Keep the handle of polisher free from oil or grease.

14. Turn the power switch off and unplug the power supply cord for the following cases.
 - When the polisher is not in use or when repairing it.
 - When replacing discs and abrasives.
 - When possible risks are suspected.
15. Remove the wrench.
 - Before turning the power switch ON, be sure that all equipment used for adjustments is put away.
16. Prevent accidental start-up.
 - Do not carry the polisher around while the power supply cord is plugged in the power outlet.
 - Turn OFF the power switch before plugging the power supply cord into the power outlet.
17. Pay attention to your surroundings.
 - When using the polisher, follow the procedures specified in this instruction manual.
 - Do not use the polisher when tired or under the influence of drugs or alcohol.
18. Check for damaged parts.
 - Before using, check if any parts are not cracked, deformed, or damaged. Perform a few test runs to check if there are any abnormalities.
 - For replacement of carbon brushes follow the instruction manual. If not instructed, contact your dealer or Alpha Professional Tools.
 - Do not use the polisher if it is having difficulties starting up when turning on the power switch.
19. Use only Alpha genuine replacement parts and accessories.
 - When servicing the polisher, do not use other than specified replacement parts and accessories listed in this manual. It may cause an accident or injury.
20. Repairing the polisher.
 - Do not try to repair or reconstruct the polisher by yourself. This polisher has been developed following rigorous safety standards. Attempting to repair the polisher on your own may cause an accident and/or injury. Contact your dealer or Alpha Professional Tools for repairs otherwise you may cause irreversible damage to your polisher .

About Double Insulation

This polisher is designed with double insulation. Two insulations are used between the conductor and the outer body of the polisher. An Electric Polisher with the double insulation highly improves safety from electric shocks. Do not attach or replace unspecified parts and do not assemble incorrectly. This may cause the insulation to malfunction.

Precautions for the Safe Use of the Alpha Wet Polisher:

In addition to the general safety notes described on the preceding pages, please read and observe the following precautionary notes before using the polisher.

⚠ DANGER!

1. Check the working voltage.
 - Be sure the voltage available at power outlet matches specified voltage on the nameplate. 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. Inspect all polishing discs.
 - Never use cracked, chipped or damaged polishing discs.
3. Hold the polisher tightly at start-up.
 - Failure to do so may cause an injury due to high impact at initial start up.
4. 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.
5. 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.
6. Do not pour water or any liquids onto or inside the polisher.
 - It may cause electric shocks.
7. Do not hold the polisher in a vice.
8. Do not touch any rotating parts.
 - Never touch the polishing disc of the polisher during operation with your hands.
9. Do not leave the disc while spinning on the bench, floor or surface of your workpiece.
 - It may cause a accident or injury.

2. Checking the carbon brushes.
 - Carbon brushes are located inside the motor . They wear out over time based on polisher usage.
 - If a carbon brush is worn out, it may cause the motor to malfunction or fail. Whenever the length of the carbon brush reaches the wear limit , replace it with a new one.
 - Keep the carbon brush clean, so it can slide freely in its brush holder.

⚠ CAUTION!

When replacing used carbon brushes with new ones, be sure to use only Alpha genuine carbon brushes.

How to replace Carbon Brushes (Figure-7)

1. Disassemble.
 - Remove the grounding screw from rear of the motor to release grounding wire.
 - Remove all screws from the rear of the motor to release water line mounting plate.
 - Slide out the motor cover.
 - Locate the carbon brushes and pull the torsion spring with needle nose pliers. While holding the torsion spring, pull out the carbon brush.
 - Pull the terminal of carbon brush out of its pin.
2. Assembly.
 - Replace worn out carbon brushes with new ones and proceed assembling in reverse order described above.



Figure-7

⚠ CAUTION!

Do not pull the carbon brush out of its holder by the pigtail while the torsion spring is loaded.

- After installing the new carbon brushes place the motor cover and tighten the screws.

CAUTION!

5. Precautions immediately after use.
 - After using the polisher, turn OFF the switch.
 - Once the disc stops rotating completely, put the polisher in a safe place. It may cause a unexpected accident if you touch the disc before the disc stops rotating.

Ground Fault Circuit Interrupter:

A Ground Fault Circuit Interrupter (GFCI) is mounted at the end of power supply cord. The GFCI goes OFF when water enters inside the tool's housing preventing the operator from electric shocks.

DANGER!

When the GFCI goes OFF, the Reset button pops up. This is the result of water entering the polisher housing. Turn OFF the power switch and blow dry air inside the motor cover through the air vents. Press the GFCI Reset button. The polisher is ready to start working after the reset button is pressed down. (Figure-6)

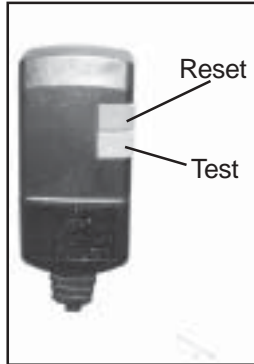


Figure-6

WARNING!

1. Do not remove the GFCI.
2. Check items below when the GFCI goes OFF frequently.
 - Force applied on the polisher.
 - Water entered inside the polisher.
 - Voltage drop due to sharing the same power source in work area.

Maintenance & Inspection:

DANGER!

Before servicing the polisher, turn the switch OFF and unplug the power supply cord from the power outlet.

1. Check the attaching screws.
 - Before starting any operation, inspect polisher for loose screws.
 - If the polisher is used with loose screws, it is dangerous. Be sure to tighten them.

WARNING!

1. Attach the backer pad and polishing disc correctly by following the procedure in this instruction manual.
 - Attaching the polishing discs incorrectly may cause an accident.
2. 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.
3. Do not touch the polishing disc while spinning.
 - The polishing disc spins very fast and you may hurt yourself.
4. 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 trap the power supply cord on anything.
 - Be careful not to drop the polisher or any materials. It may cause an accident.

Preparation Before Operation:

Before using the polisher, be sure to test the GFCI by pressing the Test button.

1. Testing the GFCI.
 - Since the Alpha Wet Polisher is designed with double insulation, an in-line GFCI is provided as a standard accessory. For your safety and to prevent possible electric shocks, it is strongly advised to test the GFCI on a regular basis.

Note: The GFCI must be used for your safety when this polisher is used anywhere in a damp environment, when used with water, or when it is used on metal plates, steel frames or platens.

DANGER!

Never attach a damaged extension cord to the polisher.

Note: Use the appropriate extension cord as referred below. The table shown below is for 115V use. For 220V use, the maximum length of a cord may be twice as long as the cord for 115V.

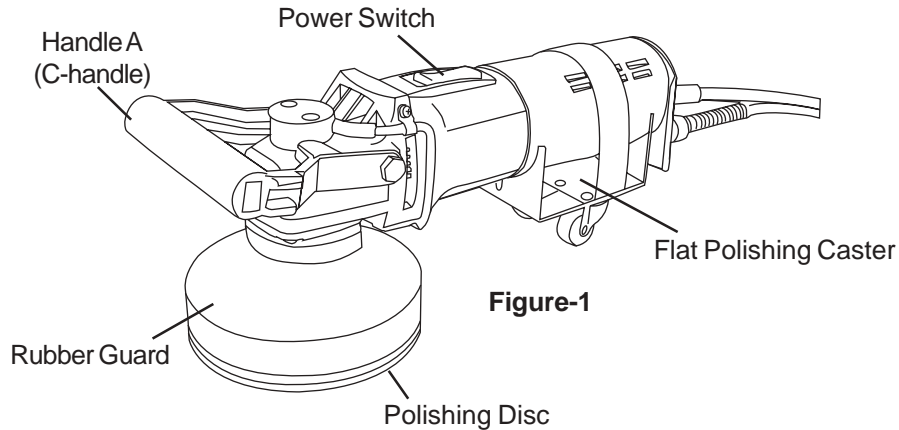
Gauge/AWG	Maximum Length
1.25mm ²	30Ft / 10m
2mm ²	45 Ft / 15m
3.5mm ²	90 Ft / 30m

2. Organize the work area.
 - Before beginning any operations, make sure the work area conditions are well organized for safe polishing.

About the 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.

Part Names:



Specifications:

Working Power Supply	Single-phase AC, 50/60 Hz
Voltage	110V / 220V
Amperage	7.8A / 3.8A
Wattage	800W
Motor	Single-phase,
No Load	3,000 R.P.M.
Polishing Disc Size	4" / 100mm
Arbor	5/8-11" for AWP-158
Arbor	M14-2 for AWP-214
Weight	6lbs / 2.7kg
Cord	10ft / 3m single-phase cable



1. During operation, be sure to wear personal safety equipment.
2. If you accidentally drop the polisher, do not use the polisher until checking that it is not cracked, deformed, or damaged. Check the polishing disc as well.

Before plugging the power supply cord into the power outlet, make sure the switch is turned OFF. If you plug in the power supply cord without realizing the switch is turned ON, the polisher will start and it may cause an accident.

1. Water valve operation
 - Turn ON the water valve lever to allow water to flow through the polisher.
2. Switch operation
 - Push the switch lever forward to start the polisher. Wait until the motor has reached its constant rpm (revolutions per minute).
3. Polishing procedure
 - When the polishing disc comes into contact with the workpiece make contact slowly.
 - Proceed polishing in a desired pattern using all polishing discs in recommended sequence.
4. Applying force onto the polisher
 - Do not apply more force onto the polisher than the force created by the weight of the polisher itself. The polishing disc is designed to work properly under light weight.
 - Applying excessive force or pressure may damage the disc and could shorten the machine's service life. Such action will decrease rotation speed, which reduces the efficiency of polishing action and jeopardize polishing results.

4. Attaching the flat polishing caster. The flat polishing caster was designed to aid polishing flat surfaces. To perform properly such application you need to have the C-handle (handle A) mounted. (Figure- 5)



Figure-5

- a). Open the metallic strap to place the auxiliary frame onto the motor. Make sure the water pipe matches the two slots located at the base of flat polishing caster. The rollers should face the same position as the spindle.
- b). Lock the metallic strap around the motor to securely attach the flat polishing caster.

Removal Procedures

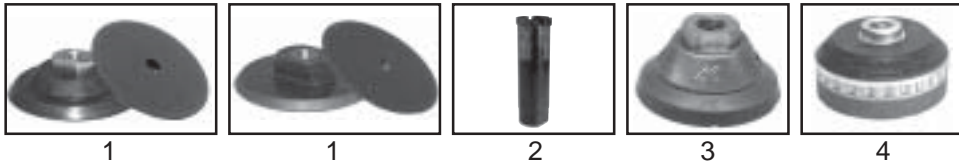
Repeat the attachment procedures in reverse order.

About the applicable optional accessories

The AWP-158 is equipped with 5/8"-11 spindle thread. Therefore, it can be equipped with a multitude of optional accessories as recommended below.

1. Alpha Rubber or Rigid Backer Pads for Alpha Ceramica Flexible Diamond Discs or Alpha Sand Paper
2. Alpha Core Drill Bit
3. Alpha Twistouch Turbo
4. Alpha PVA - Quick Change Style

How to Polish:



Standard Accessories:



Flat Polishing Caster



Side Handle



Carbon Brushes



GFCI



Rubber Guard



Wrenches



Hose Fitting



C-Handle

Before Use:



Before using the polisher, check the following items. In particular, check items 1 to 5 before plugging the power supply cord into the power outlet.

1. Check the working voltage.
 - Be sure the voltage specified on the nameplate is the voltage available at the power outlet. If the polisher is used with higher voltage than specified, the motor will burnout. Any attempts to do so may damage the polisher and/or cause an accident.
2. Make sure the ON/OFF switch is off.
 - If you plug in the power supply cord without realizing that the switch is ON, the polisher will start and may cause an accident.
 - When the switch is slid forward, the polisher is turned ON.
 - When it is slid backward, the polisher is turned OFF.
 - Make sure the switch is slid backward in OFF position before plugging the cord in the power outlet.
3. Inspect the protective disc cover.
 - Do not remove the rubber guard. It will protect you if the polishing disc breaks and against being splashed with water.
 - Be sure to firmly attach the polishing disc or any optional accessory.

4. Inspect the backer pad and polishing disc.
 - Check if you have a specified backer pad and polishing discs.
 - Never use cracked, chipped, or any damaged backer pads or polishing discs.
 - Follow the procedures specified in the instruction manual to properly attach applicable accessories.
5. Check the power outlet.
 - When the plug of the power supply cord is easily pulled out of the power outlet, the outlet should be replaced. For such task, consult an electrician. If the power outlet is used on a continuous basis, it may overheat and cause accidents.

6. Perform test runs.



WARNING!

1. Before turning the switch ON, make sure the rotating parts are not touching anything. If the switch is turned ON while they are in contact with anything else, the disc may get damaged and it may cause injuries.
2. When a new disc is attached and the switch is turned ON, keep your body well away from the exposed sides of the disc for a moment until the polisher reaches its full speed.

It is very dangerous to perform polishing operations using cracked, chipped or damaged discs. Before starting polishing operations, keep the wheel away from anyone nearby. Be sure to perform a few test runs to check whether there are any abnormalities.

Test run duration:

- After replacing a polishing disc.....At least 1 minutes
- Before starting operations each day.....At least 1 minute.

Preparation & Inspection:

About the applicable standard accessories

Attaching and removing standard and/or optional accessories.



DANGER!

Be sure to unplug the power supply cord from the power outlet before attaching or removing recommended accessories to prevent accidents. Starting the motor accidentally may cause bodily injury.



WARNING!

Be sure to tighten any loose screws and applicable accessories.

1. Backer Pad Attachment Procedures (Figure-2)

- a). Place the polisher upward to attach the backer pad onto the spindle.
- b). Slide the wrench into provided slot located in the front of polisher to lock the spindle and proceed tightening the the backer pad.
- c). Remove the wrench.
- d). Center and attach the polishing disc onto the backer pad by securely pressing onto the attachment.
- e). Cut rubber guard according to your needs.



Figure-2

Note: If using the Alpha Twistouch Turbo system for flat area applications together with the flat polishing caster, a “SPACER RING” may be needed to be placed between the spindle of AWP and Twistouch Adapter to level the height of the Twistouch Turbo abrasives with the flat polishing caster.)

2. Attaching the water hose. (Figure-3)

- a). Attach the polisher water hose fitting to a regular garden hose by tightening the fitting. The polisher water hose fitting will fit on any garden hose.



Figure-3

3. Attaching the C handle (handle A).

(Figure -4) The C handle (handle A) delivers better control and stability of the polisher when used with any of the following accessories; flat polishing caster, core drill bit or Twistouch Turbo.

- a). Slide the C handle (handle A) onto the gear case and match the holes pattern.
- b). Insert provided two screws (M8X16) into the holes and tighten them to securely attach the C handle (handle A) onto the gear case.



Figure-4

Note: Do not overtighten the two screws (M8X16). Doing so you will risk stripping the threads.