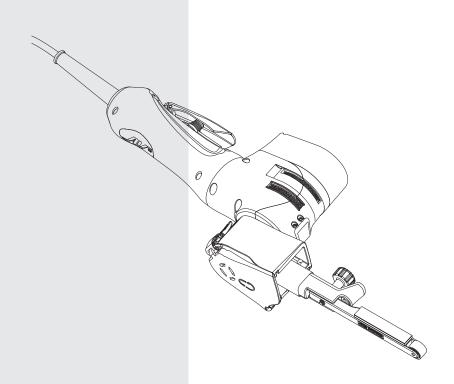
# INSTRUCTION MANUAL EIECTRIC BELT SANDER



1/2 in. x 18 in. (12.7 mm x 457.2 mm) 20,000 RPM(/min), 4637 SFPM (1413 SMPM)



### **WARNING:**

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

## **SPECIFICATIONS**

Voltage	110-120V	220-240V	
Model	AU-001003	AE-001003	
Belt Size in. (mm)	1/2 x 18 (12.7 x 457.2)	1/2 x 18 (12.7 x 457.2)	
Motor Speed	20,000 RPM (/min)	20,000 RPM (/min)	
Belt Speed SFPM (SMPM)	4637 (1413)	4637 (1413) 3.04 (1.38)	
Product Net WT. lb. (kg)	3.04 (1.38)		
Width in. (mm)	6.02 (153.0)	6.02 (153.0)	
Length in. (mm)	16.34 (415.0)	16.34 (415.0)	
Height in. (mm)	2.74 (69.5)	2.74 (69.5) 66.5 (77.5) 1.93 (6.33)	
Noise Level dBA Pressure (Power)	65 (76)		
Vibration Level m/s²(ft/s²)	1.88 (6.16)		

- Due to our continuing programme of research and development, the specifications herein are subject to change without notice. Note: Specifications may differ from country to country.
- Noise : The typical A-weighted noise level determined according to EN62841, Uncertainty (K) : 3 dB(A)
- Vibration: The vibration total value (tri-axial vector sum) determined according to EN62841, Uncertainty (K): 1.5 m/s²

## **SYMBOLS**

The following show the symbols used for the equipment. Be sure that you understand their meaning before use.



Read operator instructions before using



Prufstelle Testing and Certification Institute



Wear eye protection
Wear respiratory protection
Wear hearing protection



Technischer Überwachungsverein Rheinland United States and Canada Approved Mark



Only for EU countries

Do not dispose of electric equipment together with household waste material! In observance of European Directive 2002/96/EC on waste electric and electronic equipment and its implementation in accordance with national law, electric equipment that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.

#### Intended use

The tool is intended for the sanding of wood, plastic and metal materials as well as painted surfaces.

#### Power supply

The tool should be connected only to a power supply of the same voltage as indicated on the nameplate, and can only be operated on single-phase AC supply.

## **GENERAL SAFETY RULES**

#### **A** WARNING:

Read all instructions. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury. The term "power tool" in all of the warnings listed below refers to your mains-operated (corded) power tool or batteryoperated (cordless) power tool. Please make sure that the side cover has been closed properly before operating.

## SAVE THESE INSTRUCTIONS

#### Work area safety

- 1.Keep work area clean and well lit. Cluttered and dark areas invite accidents
- 2.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.
- 3.Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

#### **Electrical safety**

- 4.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.
- 5. 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.
- 6.Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- 7.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.
- 8. 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.

#### Personal safety

- 9.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.
- 10.Use safety equipment. Always wear eye protection. Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.

- 11. Avoid accidental starting. Ensure the switch is in the off-position before plugging in. Carrying power tools with your finger on the switch or plugging in power tools that have the switch on invites accidents.
- 12. 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.
- 13.Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- 14.Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.
- 15.If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of these devices can reduce dust-related hazards.

#### Power tool use and care

- 16.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.
- 17.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.
- 18. 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.
- 19. 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.
- 20. Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.

- 21. Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- 22. Use the power tool, accessories and tool bits etc. in accordance with these instructions and in the manner intended for the particular type of power tool, 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.

#### Service

- 23. 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.
- 24. Follow instruction for lubricating and changing accessories.
- 25. Keep handles dry, clean and free from oil and grease.

## **Specific Safety Rules**

DO NOT let comfort or familiarity with product (gained from repeated use) replace strict adherence to belt sander safety rules. If you use this tool unsafely or incorrectly, you can suffer serious personal injury.

- 1. Hold power tools by insulated gripping surfaces when performing an operation where the cutting tool 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.
- 2. Ventilate your work area adequately when you perform sanding operations.
- 3. Some material contains chemicals which may be toxic. Take caution to prevent dust inhalation and skin contact. Follow material supplier safety data.
- 4. Always use the correct dust mask/respirator for the material and application you are working with.
- 5. Always use safety glasses or goggles. Ordinary eye or sun glasses are NOT safety glasses.
- 6. Hold the tool firmly with both hands.
- 7. Make sure the belt is not contacting the workpiece before the switch is turned on.
- 8. Keep hands away from rotating parts.
- 9. Do not leave the tool running. Operate the tool only when hand-held.
- 10. This tool has not been waterproofed, so do not use water on the workpiece surface.

## SAVE THESE INSTRUCTIONS.

### **M** WARNING :

MISUSE or failure to follow the safety rules stated in this instruction manual may cause serious personal injury.

## **ACCESSORIES**

## **A** CAUTION:

These accessories or attachments are recommended for use with your **AirVANTAGE** tool specified in this manual. The use of any other accessories or attachments might present a risk of injury to persons. Only use accessory or attachment for its stated purpose.

If you need any assistance for more details regarding these accessories, ask your local Makita service center.

## For European countries only EC Declaration of Conformity

We AirVANTAGE Corporation as the responsible manufacturer declare that the following AirVANTAGE machine(s):

Designation of Machine:

Model No./ Type: AU-001003, AE-001003

We: X'POLE PRECISION TOOLS INC No.530-1, Sec.2, Guoling Rd., Zhongli Dist., Taoyuan City 320, Taiwan R.O.C.

declare in sole responsibility that the equipment to which this declaration applies, complies with these normative documents:

Machinery Directive: 2006/42/ECEMC Directive: 2014/30/EU

and conforms to the following EN standard,

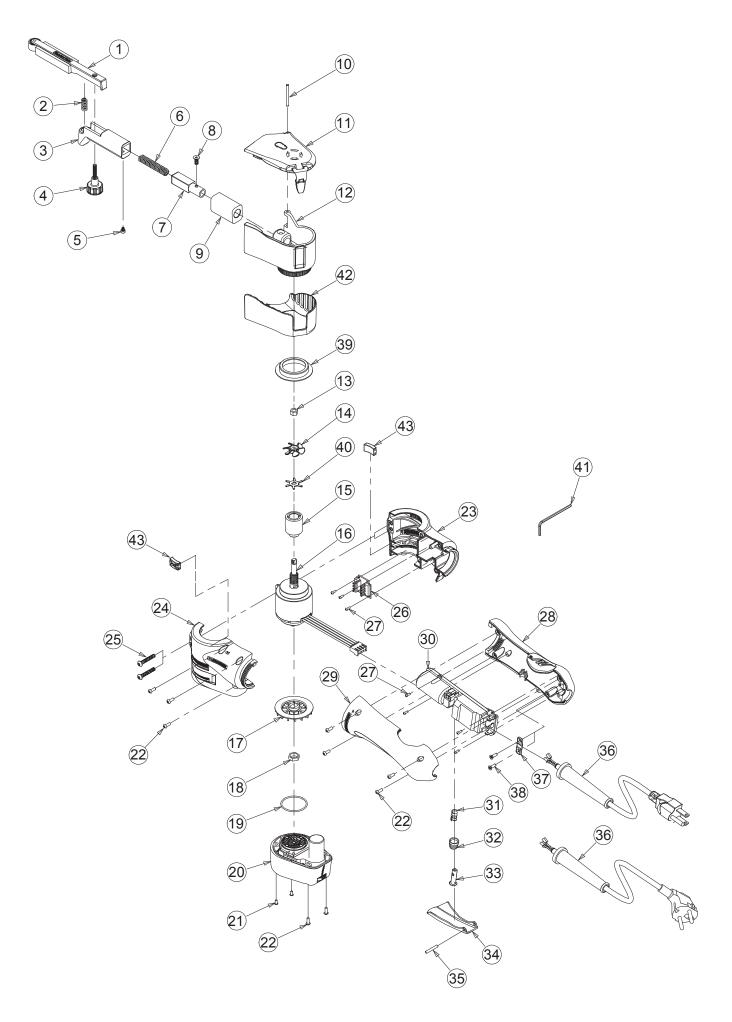
EN 62841-1EN 62841-2-4

#### **Signature**

Name, Surname: PETER Wu

Position/ Title: Quality assurance manager

Date: 2018 / 08



## **PARTS LIST**

ITEM	P/N	DESCRIPTION	QTY
1	EOSB0049	FILE BELT ARM, (STANDARD STYLE)	1
2	XPA2031	SPRING,TRACKING BIAS	1
3	EOSB0009	TRACKING ARM MOUNT	1
4	EOSB0010	TRACKING / CONTROL KNOB	1
5	XPA2039	SCREW,SHCS (M3x5)	1
6	XPA2036	SPRING-BELT TENSION	1
7	XPA2038	TRACKING ARM POST	1
8	XPA0767	HEX SOCKET COUNTERSUNK HEAD MACHINE SCREW(M4x10)	1
9	XPA2046	DUST COVER	1
10	XPA2024	PIN, 3x32mm	1
11	EOSB0050	BELT COVER AND LATCH ASSEMBLY	1
12	EOSB0012	BELT HOUSING	1
13	EOSB0056	SCREW(M6)	1
14	EOSB0004	COOLING FAN(SMALL)	1
15	EOSB0065	DRIVE PULLEY	1
16	EOSB0032	MOTOR 110-120V ASSEMBLY	1
16	EOSB0033	MOTOR 220-240V ASSEMBLY	1
17	EOSB0005	COOLING FAN(LARGE)	1
18	EOSB0057	SCREW(3/8-24)	1
19	EOSB0011	O-RING(O/R 30x1.5 N70)	1
20	EOSB0041	PCB(DC) 110-120V ASSEMBLY	1
20	EOSB0047	PCB(DC) 220-240V ASSEMBLY	1
21	S6-3006A	HEX.SOCKET BUTTON HEAD SCREW(M3x6)	2
22	S6-3008A	HEX.SOCKET BUTTON HEAD SCREW(M3x8)	9
23	EOSB0019	MOTOR HOUSING(RIGHT)	1
24	EOSB0020	MOTOR HOUSING(LEFT)	1
25	S6-3014A	HEX.SOCKET BUTTON HEAD SCREW(M3x14)	2
26	EOSB0042	PCB(BRIDGE)	1
27	S7-2006A	BUTTON HEAD SCREW(M2x6)	7
28	EOSB0017	HANDLE(RIGHT)	1
29	EOSB0018	HANDLE(LEFT)	1
30	EOSB0038	PCB(AC) 110-120V	1
30	EOSB0044	PCB(AC) 220-240V	1
31	EOSB0061	SPRING	1
32	EOSB0023	DUST BOOT	1
33	EOSB0022	VALVE STEM	1
34	EOSB0006	LEVER (AV) 110-120V	1
34	EOSB0007	LEVER (AV) 220-240V	1
35	XPA2027	SPRING PIN	1
36	EOS50174-I12	POWER CORD ASSEMBLY	1
36	EOS50173-I12	POWER CORD ASSEMBLY	1
37	EOS50105	CORD SUPPORT PLAT	1
38	S5-3010B	HEX SOCKET HEADLESS SET SCREW(M3x10)	2
39	EOSB0048	DUST COVER	1
40	EOSB0060	WASHER	1
41	XPA2329	WRENCH,2.5mm L-KEY	1
42	EOSB0062	BELT COVER	1
43	EOSB0064	PLUG	2

# Mounting and Removing Abrasive Belt

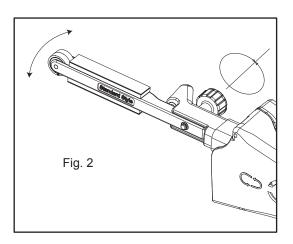
To Install/Remove Belt:

- 1. Disconnect the electric power supply.
- 2. Flip the Belt Cover Latch up to release the Belt Cover.
- 3. Rotate the Belt Cover upward, exposing the Drive Pulley.
- 4. Pull back the Tracking Arm Mount to gain and hold slack in the belt.
- 5. Remove and replace the belt, then release the Tracking Arm Mount to regain tension in the belt.
- 6. Rotate the Belt Cover downward, and flip the Belt Cover Latch down, securing the Belt Cover.
- 7. Connect the air line.
- 8. Adjust belt tracking by turning the knob to the left or right as needed, while the machine is running.

## **Adjusting Belt Tracking**

To Adjust Belt Tracking:

- 1. While the tool is running, turn the Tracking Knob to the left or right, so the abrasive belt runs centered over contact arm wheel. (See Fig. 2.)
- 2. Always apply the returning side of the belt to the workpiece to maintain proper tracking.

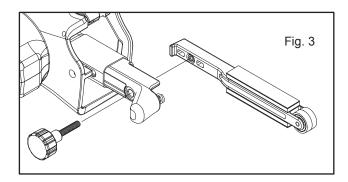


# Mounting and Removing Contact Arms

To Install/Change Contact Arm:

- 1. Disconnect the electric power supply.
- 2. Flip the Belt Cover Latch up to release the Belt Cover.
- 3. Rotate the Belt Cover upward, exposing the Drive Pulley.
- 4. Pull back the Tracking Arm Mount to gain and hold slack in the belt.
- 5. Remove the belt.
- 6. Remove the Tracking Knob.

- 7. Remove the Contact Arm and replace with the desired arm. Make sure the tab on the end of the arm is in the channel of the Tracking Arm Mount. (See Fig. 3.)
- 8. Replace the Tracking Knob and tighten it into the threaded hole on the Contact Arm so the Contact Arm is as straight as possible.
- 9. Install the abrasive belt and secure the Belt Cover.
- 10. Connect the electric power supply and adjust belt tracking by turning the Tracking Knob as needed while the machine is running.



# Adjusting Belt Housing and Handle Position

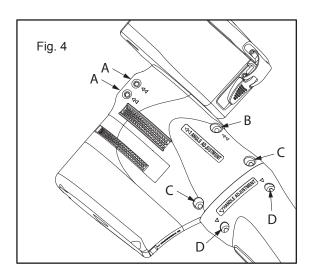
To Adjust Belt Housing Position:

- 1. Disconnect the electric power supply.
- 2. Loosen M3 cap screws "A" and "B": (See Fig. 4.)
- 3. Rotate the Belt Housing to the desired position.

  Detents indicate the positions within a 360 degree range.
- 4. Tighten M3 cap screws "A" and "B":

To Adjust Handle/Lever Position:

- 1. Disconnect the electric power supply.
- 2. Loosen M3 cap screws "C" and "D": (See Fig. 4.)
- 3. Rotate the Handle/Lever to the desired position. Detents indicate the positions within a 360 degree range.
- 4. Tighten M3 cap screws "C" and "D":



### **Brushless Electric Belt-Sander Overload and Overheat Protections**

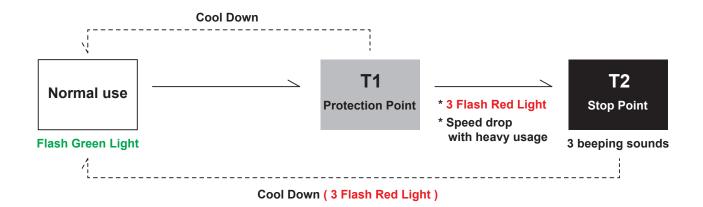
#### (1) 2-Step Overload Protection

- a) The LED indicator will turn from a flashing green light into a flashing red light whenever the PCB detects a power overload.
- b) The tool will stop automatically within approximately 5 seconds to prevent long-term overloading damage. The LED indicator will flash red until the tool stops.
- c) Release the lever and push again to restart the Belt-Sander. The LED indicator will turn from a flashing red light back into a flashing green light.



#### (2) Motor Overheat Protection

- a) The Belt-Sander detects for 2 temperature points (T1&T2) to initiate the overheat protection system. T2 is the higher temperature.
- b) When the motor temperature rises to T1, the tool speed may drop with heavy sustained usage, but may not affect the speed with lighter usage. At T1, the LED indicator will flash red 3 times periodically. The Belt-Sander can resume operation once it has fully cooled down and the LED indicator has turned back to a flashing green light.
- c) If not given an opportunity to cool down when motor temperate has reached T1, the temperature of the motor will reach T2. The tool will automatically shut down automatically with 3 beeping sounds; the LED indicator will also flash red 3 times periodically. Wait until the motor has completely cooled down and the LED indicator has turned back to a flashing green light. During the cooling period, the user will hear 3 beeping sounds when pressing down the lever. This shows that the tool is still under Overheat Protection mode.



#### (3) PCB Heat Protection

When the PCB reaches the protection point, the tool will stop automatically with 5 beeping sounds; the LED indicator will turn into a flashing red light. The LED indicator will keep flashing red until the PCB has fully cooled down. Once the PCB has fully cooled, it will turn back into a flashing green light. The tool can then resume operation by pressing the lever again.



### AirVANTAGE™ Tools

1966 West Holt Ave. Pomona, CA 91768. Telephone: 909-620-0788.

No.530-1, Sec. 2, Guoling Rd., Zhongli Dist., Taoyuan City 320, Taiwan (R.O.C.)