

OPERATOR'S MANUAL FOR AirVANTAGE™ 3 in. (77 mm) Sander/Buffer and 1 1/4 in (32mm) RANDOM ORBITAL SANDERS



| | | | | | | | | |
|--|--|---|--------------------------|-----------------|---------------|---------------------|----|----|
| <p>Declaration of conformity AirVANTAGE™ Tools 10018 Lower Azusa Road, Unit #C; El Monte, California 91731 USA declare on our sole responsibility that the products 3 in. Sander/Buffer and 1 1/4 in. Mini Random Orbital Sanders (See "Product Configuration/Specifications" Table for particular Model) to which this declaration relates is in conformity with the following standard(s) or other normative document(s) EN ISO 15744:2002. Following the provisions of 89/392/EEC as amended by 91/368/EEC & 93/44/EEC 93/68/EEC Directives and consolidating Directive 98/37/EC</p> | | | | | | | | |
| Place and date of issue | Name | Signature or equivalent marking of authorized person | | | | | | |
| <p>Operator Instructions Includes – Please Read and Comply, Proper Use of Tool, Warranty, Product Configuration and Specifications Table, Parts Page, Parts List, Back-Up Pads, Work Stations, Putting the Tool Into Service, Operating Instructions and Compressor Layout.</p> | <p>Important Read these instructions carefully before installing, operating, servicing or repairing this tool. Keep these instructions in a safe accessible location.</p> | | | | | | | |
| <p>Manufacturer/Supplier AirVANTAGE™ Tools 10018 Lower Azusa Road; Unit #C; El Monte, California 91731 USA Tel: (626) -575-4568 Fax: (626)-575-4968</p> | <p>Required Personal Safety Equipment</p> <table style="width: 100%; border: none;"> <tr> <td style="padding: 5px;">Safety Glasses</td> <td style="padding: 5px;">Breathing Masks</td> </tr> <tr> <td style="padding: 5px;">Safety Gloves</td> <td style="padding: 5px;">Ear Protection</td> </tr> </table> | | Safety Glasses | Breathing Masks | Safety Gloves | Ear Protection | | |
| Safety Glasses | Breathing Masks | | | | | | | |
| Safety Gloves | Ear Protection | | | | | | | |
| <p>Recommended Airline Size - Minimum 10 mm 3/8 in</p> | <p>Recommended Maximum Hose Length 8 meters 25 feet</p> | <p>Air Pressure</p> <table style="width: 100%; border: none;"> <tr> <td style="padding: 5px;">Maximum Working Pressure</td> <td style="padding: 5px;">6.2 bar</td> <td style="padding: 5px;">90 psig</td> </tr> <tr> <td style="padding: 5px;">Recommended Minimum</td> <td style="padding: 5px;">NA</td> <td style="padding: 5px;">NA</td> </tr> </table> | Maximum Working Pressure | 6.2 bar | 90 psig | Recommended Minimum | NA | NA |
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Please Read and Comply with:

- 1) General Industry Safety & Health Regulations, Part 1910, OSHA 2206, available from: Superintendent of Documents; Government Printing Office; Washington DC 20402
- 2) Safety Code for Portable Air Tools, ANSI B186.1 available from: American National Standards Institute, Inc.; 1430 Broadway; New York, New York 10018
- 3) State and Local Regulations.

Proper Use of Tool

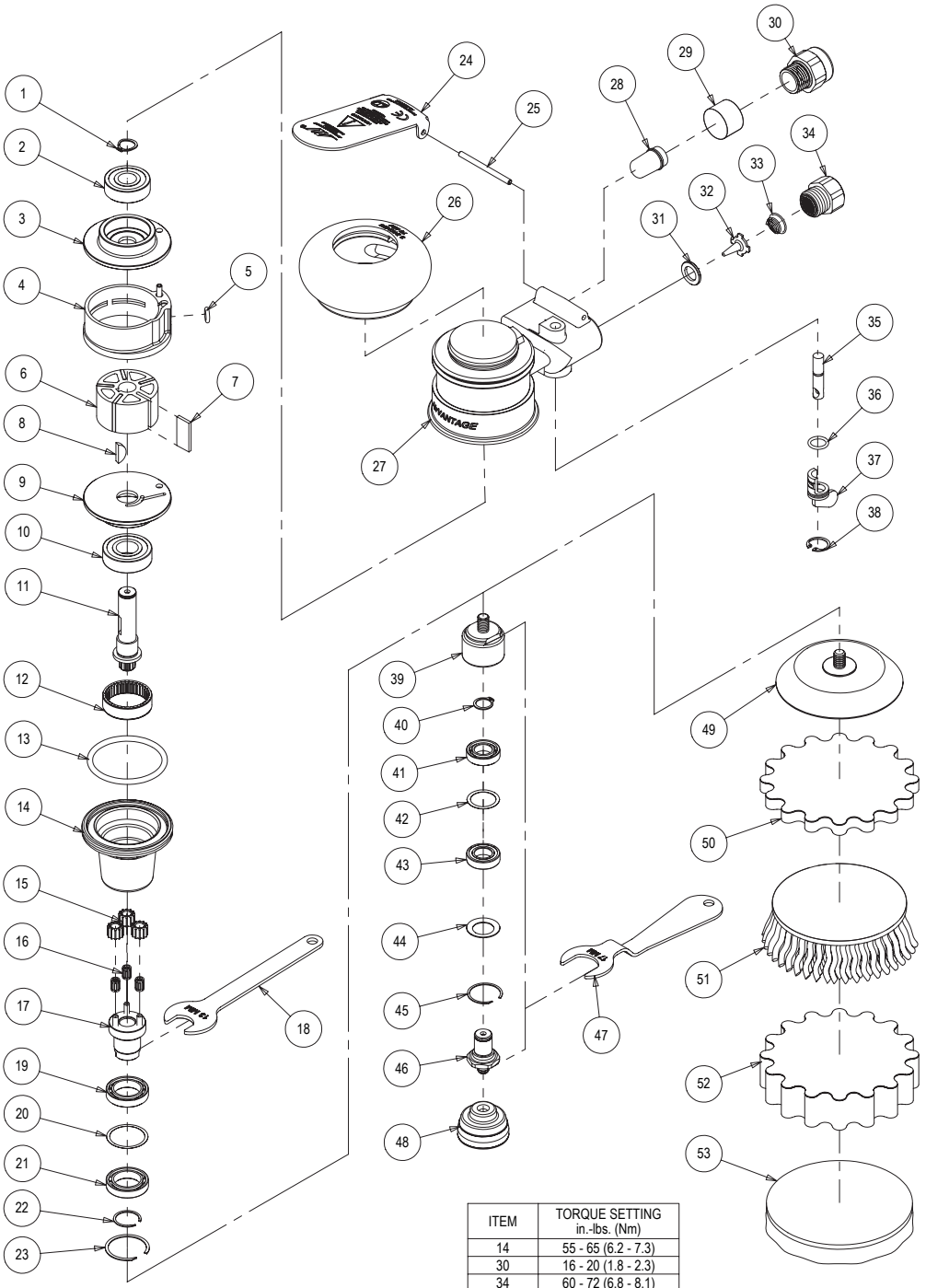
This sander is designed for sanding all types of materials i.e. metals, wood, stone, plastics, etc. using abrasive designed for this purpose. Do not use this sander for any other purpose than that specified without consulting the manufacturer or the manufacturer's authorized supplier.

Do not use back-up pads that have a working speed less than 12,000 RPM free speed. Never use back-up pads that have a weight and/or size different than the machine was specifically designed for.

AirVANTAGE™ Warranty

All AirVANTAGE™ Random Orbital Sanders are warranted for defects in materials or workmanship for one year from the date of delivery to the user. Combined with the AirVANTAGE™ name, this Warranty expresses our total confidence in the superior quality, durability, and performance of the AirVANTAGE™ LP. To receive any expressed or implied warranty, tool must be repaired by an authorized AirVANTAGE™ Service Center. The "Service Instructions" section in this document is provided for use after completion of the warranty period. To receive warranty, tools must be operated under the conditions as described in the "Putting the Tools into Service" section of this document and be connected to an air supply system as shown in Figure 1. Tools that have been exposed to extreme conditions will be covered under warranty at the sole discretion of AirVANTAGE™

Parts Page



| ITEM | TORQUE SETTING in.-lbs. (Nm) |
|------|---------------------------------|
| 14 | 55 - 65 (6.2 - 7.3) |
| 30 | 16 - 20 (1.8 - 2.3) |
| 34 | 60 - 72 (6.8 - 8.1) |

Parts List

| Item | Part No. | Description | Qty. |
|------|----------|--|----------|
| 1 | AVA0040 | EXTERNAL RETAINING RING | 1 |
| 2 | AVA0021 | BEARING - 2 SHIELDS | 1 |
| 3 | AVA0065 | REAR ENDPLATE | 1 |
| 4 | AVA0067 | CYLINDER ASSEMBLY | 1 |
| 5 | AVA0042 | O-RING | 1 |
| 6 | AVB0005 | ROTOR | 1 |
| 7 | AVA0010 | VANE | 5 |
| 8 | AVA0041 | WOODRUFF KEY | 1 |
| 9 | AVA0064 | FRONT ENDPLATE | 1 |
| 10 | AVA0019 | BEARING - 2 SHIELDS | 1 |
| 11 | AVA0293 | MOTOR SHAFT ASSEMBLY | 1 |
| 12 | AVA0151 | RING GEAR | 1 |
| 13 | AVA0045 | O-RING | 1 |
| 14 | AVB0060 | MACHINED SPINDLE HOUSING | 1 |
| 15 | AVA0152 | PLANET GEAR | 3 |
| 16 | AVA0224 | NEEDLE BEARING | 3 |
| 17 | AVA0456 | PLANETARY SPINDLE ASSEMBLY | 1 |
| 18 | AVA0145 | 13 mm WRENCH (SUPPLIED WITH EACH TOOL) | 1 |
| 19 | AVA0147 | BEARING - NO SEALS/SHIELDS | 1 |
| 20 | AVA0213 | SPACER | 1 |
| 21 | AVA0148 | BEARING - 1 SEAL | 1 |
| 22 | AVA0110 | RETAINING RING | 1 |
| 23 | AVA0117 | RETAINING RING | 1 |
| 24 | AVA0223 | THROTTLE LEVER | 1 |
| 25 | AVA0031 | LEVER SPRING PIN | 1 |
| 26 | AVB0007 | 2 1/2 in. GRIP (65 mm) | Optional |
| 26 | AVB0008 | 2 3/4 in. GRIP (69 mm) | 1 |
| 26 | AVB0009 | 3 in. GRIP (75 mm) | Optional |
| 27 | AVA0222 | HOUSING | 1 |
| 28 | AVA0062 | INTERNAL MUFFLER | 1 |
| 29 | AVA0068 | MUFFLER INSERT | 1 |
| 30 | AVA0166 | MUFFLER HOUSING | 1 |
| 31 | AVA0009 | VALVE SEAT | 1 |
| 32 | AVA0007 | VALVE | 1 |
| 33 | AVA0014 | VALVE SPRING | 1 |
| 34 | AVA0013 | INLET BUSHING ASSEMBLY | 1 |
| 35 | AVA0008 | VALVE STEM ASSEMBLY | 1 |
| 36 | AVA0043 | O-RING | 1 |
| 37 | AVB0014 | SPEED CONTROL | 1 |
| 38 | AVA0039 | INTERNAL RETAINING RING | 1 |
| 39 | AVB0178 | MINI ORBITAL HEAD | 1 |
| 40 | AVA0107 | RETAINING RING | 1 |
| 41 | AVA0149 | BEARING - NO SEALS/SHIELDS | 1 |
| 42 | AVA0199 | SPACER | 1 |
| 43 | AVA0150 | BEARING 2 SEALS | 1 |
| 44 | AVA0109 | BELLEVILLE WASHER | 1 |
| 45 | AVA0119 | RETAINING RING | 1 |
| 46 | AVA0143 | SPINDLE ASSEMBLY | 1 |
| 47 | AVA0146 | 17 mm WRENCH | 1 |
| 48 | 1211500 | PAD 32 mm (1 1/4 in.) VINYL | 1 |
| 49 | 1232100 | PAD 3" LP NV VINYL | 1 |
| 49 | 1232101 | PAD 3" LP NV STD HOOK | 1 |
| 50 | AVA0154 | 3 in. WOOL BLEND POLISHING/BUFFING PAD W/ LOOP FACING | 1 |
| 51 | AVA0155 | 3 in. 4-PLY TWISTED WOOL (AGGRESSIVE) POLISHING/BUFFING PAD W/ LOOP FACING | 1 |
| 52 | AVA0156 | 3 in. FOAM POLISHING/BUFFING PAD W/ LOOP FACING | 1 |
| 53 | AVA0378 | PAD FOR 3 in. LAMBS WOOL POLISHING/ BUFFING W/ NAT HIDE FACING | 1 |
| 54 | AVA0371 | STRIP OF 5 - Ø 1 1/4 in 1500 GRIT PSA SANDING DISCS | 1 |
| 55 | AVA0372 | Ø 3 in. 120 GRIT PSA SANDING DISC | 5 |
| 56 | AVA0369 | 4 OUNCE BOTTLE OF SANDING CREAM | 1 |
| 57 | AVA0370 | 4 OUNCE BOTTLE OF GLAZE | 1 |
| 58 | AVA0251 | OPERATOR'S MANUAL | 1 |
| 59 | AVB0202 | LABEL FOR KIT CASE | 1 |
| 60 | AVA0373 | CASE FOR MINI SANDER/BUFFER KIT | 1 |

Product Configuration and Specifications:

Note: All models in this table are non-vacuum

| Machine Type | Orbit | RPM | Pad Face | Pad Type | Model Number | Pad Part Number | Product Net Weight Pound (kg) | Height in. (mm) | Length in. (mm) | Power HP (watts) | Air Consumption scfm (LPM) | *Noise Level dBA | *Vibration Level m/s ² |
|-------------------------------|-------------------|-------|----------|---|--------------|-----------------|-------------------------------|-----------------|-----------------|------------------|----------------------------|------------------|-----------------------------------|
| Buffer/Polisher Rotary Sander | NA | 3,000 | Vinyl | 3" (77 mm) diameter (1/4-20 male) for PSA discs | 030400 | 1232100 | 1.5 (0.66) | 3.7 (95) | 4.9 (124) | .28 (209) | 17 (481) | 81 | 1.4 |
| | | | Hook | 3" (77 mm) diameter (1/4-20 male) for loop discs | 030401 | 1232101 | 1.5 (0.66) | 3.7 (95) | 4.9 (124) | .28 (209) | 17 (481) | 81 | 1.4 |
| Buffer Mini ROS | 3/32 in. (2.5 mm) | 8,000 | Vinyl | 1 1/4" (32 mm) diameter (1/4-20 female) for PSA discs | 010000 | 1211500 | 1.3 (0.60) | 4.7 (119) | 4.9 (124) | .28 (209) | 17 (481) | 81 | 1.4 |
| | | | Hook | 1 1/4" (32 mm) diameter for loop discs | 010001 | 1211501 | 1.3 (0.60) | 4.7 (119) | 4.9 (124) | .28 (209) | 17 (481) | 81 | 1.4 |
| Mini ROS | 3/32 in. (2.5 mm) | 8,000 | Vinyl | 1 1/4" (32 mm) diameter for PSA discs | 010034 | 1211500 | 1.23 (0.56) | 3.9 (99) | 4.9 (124) | .15 (112) | 15 (424) | 67 | 3.5 |
| | | | Hook | 1 1/4" (32 mm) diameter for loop discs | 010035 | 1211501 | 1.23 (0.56) | 3.9 (99) | 4.9 (124) | .15 (112) | 15 (424) | 67 | 3.5 |

Note: All configurations below are non-vacuum

| Kit Config. | Orbit | RPM | Pad Face | Pad Type | Model Number | Pad Part Number | Product Net Weight Pound (kg) | Height in. (mm) | Length in. (mm) | Power HP (watts) | Air Consumption scfm (LPM) | *Noise Level dBA | *Vibration Level m/s ² |
|-------------------------------|-------------------|-------|----------|---|--------------|-----------------|-------------------------------|-----------------|-----------------|------------------|----------------------------|------------------|-----------------------------------|
| Buffer/Polisher Rotary Sander | NA | 3,000 | Vinyl | 3" (77 mm) diameter (1/4-20 male) for PSA discs | 030402 | 1232100 | 1.5 (0.66) | 3.7 (95) | 4.9 (124) | .28 (209) | 17 (481) | 81 | 1.4 |
| | | | Hook | 3" (77 mm) diameter (1/4-20 male) for loop discs | | 1232101 | 1.5 (0.66) | 3.7 (95) | 4.9 (124) | .28 (209) | 17 (481) | 81 | 1.4 |
| Buffer/Polisher and Mini ROS | 3/32 in. (2.5 mm) | 8,000 | Vinyl | 1 1/4" (32 mm) diameter (1/4-20 female) for PSA discs | | 1211500 | 1.3 (0.60) | 4.7 (119) | 4.9 (124) | .28 (209) | 17 (481) | 81 | 1.4 |

Specifications subject to change without prior notice.

*The values stated in the table are from laboratory testing in conformity with stated codes and standards and are not sufficient for risk evaluation. Values measured in a particular work place may be higher than the declared values. The actual exposure values and amount of risk or harm experienced to an individual is unique to each situation and depends upon the surrounding environment, the way in which the individual works, the particular material being worked, work station design as well as upon the exposure time and the physical condition of the user. AirVANTAGE™ cannot be held responsible for the consequences of using declared values instead of actual exposure values for any individual risk assessment.

Further occupational health and safety information can be obtained from the following websites:

<http://europe.osha.eu.int> (Europe)

<http://www.osha.gov> (USA)

Work Stations

The tool is intended to be operated as a hand held tool. It is always recommended that the tool be used when standing on a solid floor. It can be in any position but before any such use, the operator must be in a secure position having a firm grip and footing and be aware that the sander can develop a torque reaction. See the section "Operating Instructions".

Putting the Tool into Service

Use a clean lubricated air supply that will give a measured air pressure at the tool of 90 psig (6.2 bar) when the tool is running with the lever fully depressed. It is recommended to use an approved 3/8 in. (10 mm) x 25 ft (8 m) maximum length airline. It is recommended that the tool be connected to the air supply as shown in Figure 1.

Do not connect the tool to the airline system without incorporating an easy to reach and operate air shut off valve. The air supply should be lubricated. It is strongly recommended that an air filter, regulator and lubricator (FRL) be used as shown in Figure 1 as this will supply clean, lubricated air at the correct pressure to the tool. Details of such equipment can be obtained from your supplier. If such equipment is not used then the tool should be manually lubricated

To manually lubricate the tool, disconnect the airline and put 2 to 3 drops of suitable pneumatic motor lubricating oil such as Fuji Kosan FK-20, Mobil ALMO 525 or Shell TORCULA® 32 into the hose end (inlet) of the machine. Reconnect tool to the air supply and run tool slowly for a few seconds to allow air to circulate the oil. If the tool is used frequently, lubricate it on a daily basis or lubricate it if the tool starts to slow or lose power.

It is recommended that the air pressure at the tool be 90 PSI (6.2 Bar) while the tool is running so the maximum RPM is not exceeded. The tool can be run at lower pressures but should never be run higher than 90 PSI (6.2 Bar). If run at lower pressure the performance of the tool is reduced.

there is a possibility of coming into contact with live electricity, gas pipes, water pipes, etc. Check the area of operation before operation.

- 12) Take care to avoid entanglement with the moving parts of the tool with clothing, ties, hair, cleaning rags, etc. If entangled, it will cause the body to be pulled towards the work and moving parts of the machine and can be very dangerous.
- 13) Keep hands clear of the spinning pad during use.
- 14) If the tool appears to malfunction, remove from use immediately and arrange for service and repair.
- 15) Do not allow the tool to free speed without taking precautions to protect any persons or objects from the loss of the abrasive or pad.

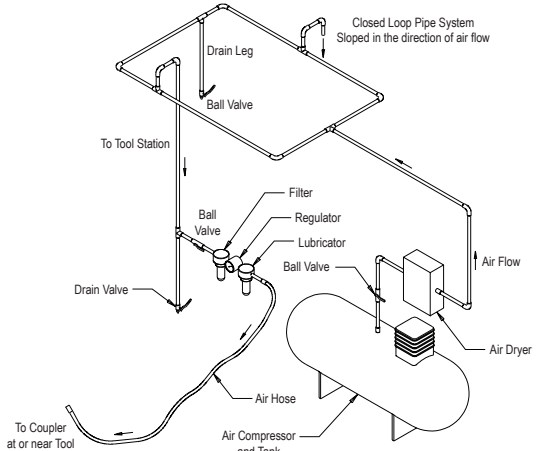


Figure 1

Operating Instructions

- 1) Read all instructions before using this tool. All operators must be fully trained in its use and aware of these safety rules. All service and repair must be carried out by trained personnel.
- 2) Make sure the tool is disconnected from the air supply. Select a suitable abrasive and secure it to the back-up pad. Be careful and center the abrasive on the back-up pad.
- 3) Always wear required safety equipment when using this tool.
- 4) When sanding always place the tool on the work then start the tool. Always remove the tool from the work before stopping. This will prevent gouging of the work due to excess speed of the abrasive.
- 5) Always remove the air supply to the sander before fitting, adjusting or removing the abrasive or back-up pad.
- 6) Always adopt a firm footing and/or position and be aware of torque reaction developed by the sander.
- 7) Use only correct spare parts.
- 8) Always ensure that the material to be sanded is firmly fixed to prevent its movement.
- 9) Check hose and fittings regularly for wear. Do not carry the tool by its hose; always be careful to prevent the tool from being started when carrying the tool with the air supply connected.
- 10) Do not exceed maximum recommended air pressure. Use safety equipment as recommended.
- 11) The tool is not electrically insulated. Do not use where

AirVANTAGE™ Back-Up Pads, Polishing/Buffering Pads and Compounds

AirVANTAGE™ back-up pads are perfectly mated for use on the AirVANTAGE™ Sander. All 3 in. pads are constructed from premium, industrial-quality materials and feature a riveted fiberglass and steel hub with molded urethane, their durability and precise construction are the ideal complement to the performance of the AirVANTAGE™ 3 in. Sander/Buffer. The 3 in. loop face polishing/buffing Pads easily attach to the 3 in. Hook face pad to quickly switch from sanding to buffing and polishing.

| Description | Part # |
|--|---------|
| 4 Ounce Bottle of Sanding Cream | AVA0369 |
| 4 Ounce Bottle of Sanding Glaze | AVA0370 |
| 1 1/4", vinyl face pad | 1211500 |
| 1 1/4", hook face pad | 1211501 |
| 3" low profile, light weight, non-vacuum, vinyl face | 1232100 |
| 3" low profile, light weight, non-vacuum, hook face | 1232101 |
| 3", wool blend, loop face, polishing/buffing pad | AVA0154 |
| 3", 4-ply twisted wool, loop face, polishing/buffing pad | AVA0155 |
| 3", foam waffle, loop face, polishing/buffing pad | AVA0156 |
| 3", lambs wool, natural hide facing, polishing/buffing pad | AVA0378 |