

Orbital Sander
OBS-18DC HDTR
Operator's Manual



READ THIS BOOK

This book has important information for the use and safe operation of this machine. Failure to read this book prior to operating or attempting any service or maintenance procedure to your American Sanders machine could result in injury to you or to other personnel; damage to the machine or to other property could occur as well. You must have training in the operation of this machine before using it. If your operator(s) cannot read this manual, have it explained fully before attempting to operate this machine.

All directions given in this book are as seen from the operator's position at the rear of the machine.

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 WARNING!

The Products sold with this Manual contain or may contain chemicals that are known to certain governments (such as the State of California, as identified in its Proposition 65 Regulatory Warning Law) to cause cancer, birth defects or other reproductive harm. In certain locations (including the State of California) purchasers of these Products that place them in service at an employment job site or a publicly accessible space are required by regulation to make certain notices, warnings or disclosures regarding the chemicals that are or may be contained in the Products at or about such work sites. It is the purchaser's responsibility to know the content of, and to comply with, any laws and regulations relating to the use of these Products in such environments. The Manufacturer disclaims any responsibility to advise purchasers of any specific requirements that may be applicable to the use of the Products in such environments.

*****This product is intended for commercial use only*****

Operator Safety Instructions

In this Operation Manual you will find three statements that you must read and observe to ensure safe operation of this machine.

DANGER means: Severe bodily injury or death can occur to you or other personnel if the **DANGER** statements found on this machine or in this Operation Manual are ignored or are not adhered to. Read and observe all **DANGER** statements found in this Operation Manual and on your machine.

WARNING means: Injury can occur to you or to other personnel if the **WARNING** statements found on your machine or in the Operation Manual are ignored or are not adhered to. Read and observe all **WARNING** statements found in this Operation Manual and on your machine.

CAUTION means: Damage can occur to the machine or to other property if the **CAUTION** statements found on your machine or in this Operation Manual are ignored or are not adhered to. Read and observe all **CAUTION** statements found in this Operation Manual and on your machine.

**DANGER:**

Failure to read the Owner's Manual prior to operating or servicing your American Sanders machine could result in injury to you or to other personnel; damage to the machine or to other property could occur as well. You must have training in the operation of this machine before using it. If you or your operator(s) cannot read English, have this manual explained fully before attempting to operate this machine.

**DANGER:**

A. Sanding/finishing wood floors can create an explosive or combustible environment. Do not operate this machine around solvents, thinners, alcohol, fuels, floor finishes, wood dust or any other flammable materials. Cigarette lighters, pilot lights, electrical sparks and all other sources of ignition should be extinguished or avoided. Keep work area well ventilated.

B. Dust generated from sanding wood floors can spontaneously ignite or explode. Promptly dispose of any sanding dust in a metal container clear of any combustibles. Do not dispose in a fire.

**DANGER:**

A. Electrocutation could occur if the machine is being serviced while the machine is connected to a power source. Disconnect the power supply before servicing.

B. Electrocutation or fire could occur if the machine is being operated with a damaged power cord. Keep the power cord clear of the pad. Always lift the cord over the machine. Do not move the machine by the power cord.

C. Shock hazard. Do not use the machine if it has been rained on or sprayed with water.

**DANGER:**

To avoid injury keep hands, feet, and loose clothing away from all moving parts on the machine. Disconnect the power cord before replacing the pad, changing the abrasive, or when servicing. Do not operate the machine unless all guards are in place. Never leave the machine unattended while connected to a power source.

**WARNING:**

Injury can occur if protective clothing or equipment is not used while sanding. Always wear safety goggles, protective clothing, and dust mask while sanding.

**WARNING:**

This sander is not to be used on pressure treated wood. Some pressure treated woods contain arsenic and sanding pressure treated wood produces hazardous dust. Inhaling hazardous dust from pressure treated wood can cause serious injury or death. Sanding pressure treated wood decks or uneven surfaces can damage the sander which is not covered under warranty or damage waiver.

**WARNING:**

Any alterations or modifications of this machine could result in damage to the machine or injury to the operator or other bystanders. Alterations or modifications not authorized by the manufacturer voids any and all warranties and liabilities.

**WARNING:**

Risk of explosion. Floor sanding can result in an explosive mixture of fine dust and air. Use floor sanding machine only in a well-ventilated area free from any flame or match.

General Power Tool Safety Warnings

WARNING: Read all safety warnings and instructions. Failure to follow warnings and instructions may result in electric shock, fire and or serious injury.

Save all warnings and instructions for future use.

The term "power tool" in the warnings refers to your main-operated (corded) power tool or battery operated (cordless) power tool.

1) Work area safety

- Keep work area clean and well lit.** Clutter or dark areas invite accidents.
- Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gasses, or dust.** Power tools create sparks which may ignite the dust or fumes.
- Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

2) Electrical safety

- 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.
- 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.
- Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- 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.
- When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of cord suitable for outdoor use reduces the risk of electric shock.

- f) **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) or ground fault circuit interrupter (GFCI) protected supply.** Use of a RCD or GFCI reduces the risk of electric shock.

3) Personal safety

- a) **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.
- b) **Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injury.
- c) **Prevent unintentional starting. Ensure switch is in off-position before connecting to power source and/or battery pack, picking up, or carrying the tool.** Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.
- d) **Remove any adjustment wrench or key before turning the power tool on.** A wrench or key left attached to a rotating part of the power tool may result in personal injury.
- e) **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- f) **Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewelry, or long hair can be caught in moving parts.
- g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust related hazards. It is recommendation that the tool always be supplied via a residual current device with a rated residual current of 30mA or less.

4) Power tool use and care

- a) **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.
- b) **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.
- c) **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 preventative safety measures reduce the risk of starting the power tool accidentally.
- d) **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.
- e) **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
- f) **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- g) **Use the power tool, accessories and tool bits ect. in accordance with these instructions, 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.

5) Service

- a) **Have the 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. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

Safety Warnings For Sanding Operations

1. This power tool is intended to function as a sander. Read all safety warnings, instructions and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire, or personal injury.
2. Operations such as grinding, wire brushing, polishing or cutting-off, are not recommended to be performed with this power tool. Operations for which the tool was not designed may create a hazard and cause personal injury.
3. Do not use accessories which are not specifically designed and recommended by the tool manufacturer. Just because the accessory can be attached to your power tool, it does not assure safe operation.
4. The rated speed of the accessory must be at least equal to the maximum speed marked on the power tool. Accessories running faster than their rated speed can break and fly apart.
5. The outside diameter and thickness of your accessory must be within the capacity rating of your power tool. Incorrectly sized accessories cannot be adequately guard or controlled.
6. The arbor size of wheels, flanges, backing pads or any other accessory must fit the spindle of the power tool. Accessories with arbor holes that do not match the mounting hardware of the power tool will run out of balance, vibrate excessively and may cause loss of control.
7. Do not use damaged accessory. Before each use inspect the accessory such as abrasive wheel for chips or cracks, backing pad for cracks, tear or excess wear, wire brush for loose or cracked wires. If power tool or accessory is dropped, inspect for damage or install an undamaged accessory. After inspecting or installing an accessory, position yourself or bystanders away from the plane of the rotating accessory and run the power tool at maximum no-load speed for one minute. Damaged accessories will normally break apart during this time.

8. Wear personal protective equipment. Depending on application, use face shield, safety goggles or safety glasses. As appropriate, wear dust mask, hearing protectors, gloves and workshop apron capable of stopping flying debris generated by various operations. The eye protection must be capable of stopping flying debris generated by various operations. The dust mask or respirator must be capable of filtering particles generated by your operations. Prolonged exposure to high intensity noise may cause hearing loss.
9. Keep bystanders a safe distance away from work area. Anyone entering the work area must wear personal protective equipment. Fragments of work piece or a broken accessory may fly away and cause injury beyond immediate area of operation.
10. Hold power tool by gripping insulated surfaces (handle) only, when performing an operation where the cutting accessory may contact hidden wiring or its own cord. Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and shock the operator.
11. Position the cord clear of the spinning accessory. If you lose control, the cord may be cut or snagged and your arm or hand may be pulled into the spinning accessory.
12. Never lay the power tool down until the accessory has come to a complete stop. The spinning accessory may grab the surface and pull the power tool out of your control.
13. Do not run the power tool while carrying it at your side. Accidental contact with the spinning accessory could snag your clothing, pulling the accessory into your body.
14. Regularly clean the power tools air vents. The motor's fan will draw the dust inside the housing and excessive accumulation may cause electrical hazards.
15. Do not operate the power tool near flammable materials. Sparks could ignite these materials.
16. Do not use excessively oversized sanding disc paper. Follow manufacturer's recommendations when selecting sanding paper. Larger sanding paper extending beyond the sanding pad presents a laceration hazard and may cause snagging, tearing of the disc or kickback.
17. Risk of explosion. Floor sanding can result in an explosive mixture of fine dust and air. Use floor sanding machine only in a well-ventilated area free from any flame or match.

Kickback and Related Warnings

Kickback is a sudden reaction to a pinched or snagged rotating wheel, backing pad, brush or any other accessory. Pinching or snagging causes rapid stalling of the rotating backing pad which in turn causes uncontrolled power tool to be forced in the opposite direction of the backing pad's rotation at the point of the binding.

For example, if an abrasive wheel is snagged or pinched by the work piece, the edge of the wheel that is entering into the pinch point can dig into the surface of the material causing the wheel to climb out or kick out. The wheel may either jump toward or away from the operator, depending on direction of the wheel's movement at the point of pinching. Abrasive wheels may also break under these conditions.

Kickback is the result of power tool misuse and incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.

1. Maintain a firm grip on the power tool and position your body and arms to allow you to resist kickback forces. Always use auxiliary handles, if provided for maximum control over kickback or torque reactions during start up. The operator can control torque reactions or kickback forces, if proper precautions are taken.
2. Never place your hand near the rotating accessory. Accessory may kickback over your hand.
3. Do not position your body in the area where power tool will move if kickback occurs. Kickback will propel the tool in the direction opposite to the wheel's movement at the point of the snagging.
4. Use special care when working corners, sharp edges etc. Avoid bouncing and snagging the accessory. Corners, sharp edges or bouncing have a tendency to snag the rotating accessory and cause loss of control or kickback.

Additional Rules For Safe Operation

1. Empty the dust bag or dust collection receiver frequently. Do not leave residue in dust bag or dust collection receiver unattended. Always empty in a non-combustible metal container. Sanding wood or varnish produces dust that can self ignite and cause injury or damage. Follow this precaution for storage.
2. Set all exposed nails. Sweep loose abrasive away from work area. Do not strike metal pipes, ect., with sanding paper. Striking metal or abrasive particles with sanding paper produces sparks that could ignite the sanding dust which can cause injury or damage.
3. Do not operate a partially assemble power tool. Keep all adjustments within manufacturer's specifications. Keep all fasteners tight. Operating a partially assembled power tool could result in injury to the operator or bystander and could cause damage to the equipment or surroundings.
4. Do not attempt to change the sanding paper while the power tool is running. The sanding pad can snag clothing and cause injury to limbs and moving sanding paper can cause abrasions.
5. The power tool should only be used on an electrical system (mains) that is rated for the electrical requirements of the power tool as shown on the nameplate. Use only on an earthing (grounded) system. Do not service the power tool if it is energized or connected to an electrical circuit. Improper use could cause fire or electric shock.

Introduction

The OBS-18 or OBS-18DC can be used on a variety of surfaces. It is an ideal tool for wood flooring maintenance and restoration work. It is also suitable for cleaning hard surfaces such as tile or Terrazzo.

Machine Specifications

Model	OBS-18DC
Model Number	07014A
Voltage / Frequency	115V / 60Hz
Amperage (A)	10
Motor	1 hp 750 Watts
Pad Size	12" X 18" (305mm X 457mm)
Power Cable	40ft 12-3 Ga Gray Rubber Jacketed
Orbits Per Minute	3600
Orbit Diameter	1/4" (6.4mm)
Shipping Weight	125 lbs (57 kg)
Noise (dBA)	74
Vibration (m/s/s)	11.2

Machine Transportation

To transport the machine, follow this procedure:

1. Unplug machine cord from the wall outlet and wrap the cord around the handle.
2. Raise and lock the handle in the upright position. To lock the handle, pull up on the Handle Release Compression Lever (see *Figure 1*).
3. Grasp the machine at the lift points (see *Figure 2*) and place in cargo area.

WARNING: The machine is heavy (125 lbs / 57 kg). To avoid injury or damage to the machine use a firm grip and proper lifting technique. Get assistance if necessary.

4. Secure machine to prevent movement in cargo area.

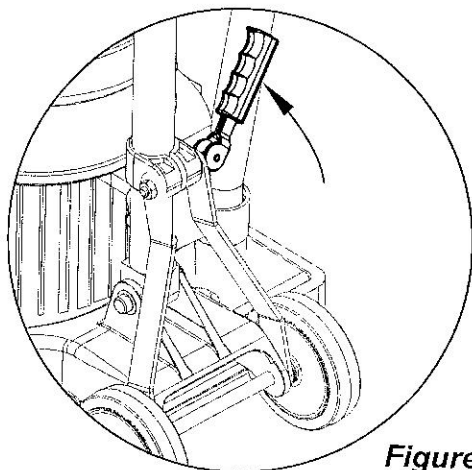
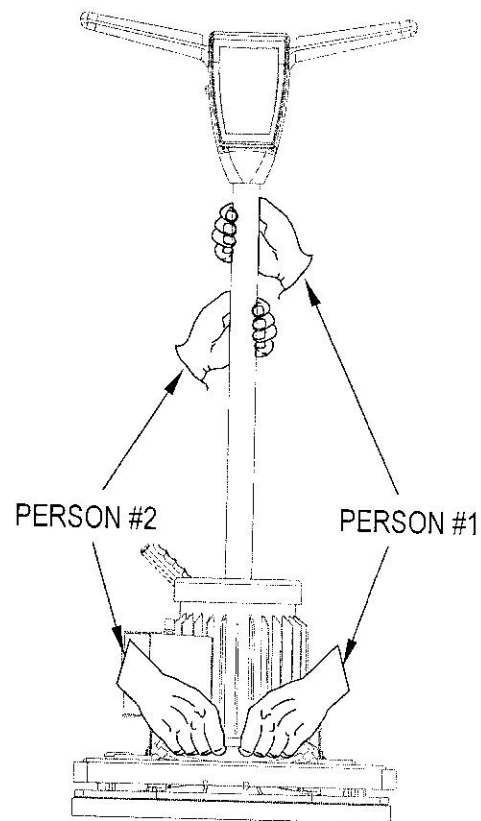


Figure 1

Figure 2



Machine Setup

To prepare the machine for use follow this procedure:

1. Familiarize yourself with the machine. Read all danger, warning, and caution statements and the Operation and Parts Manual before operating the machine. If you or the operator are unable to read English, have this manual fully explained before attempting to operate this machine.
2. Install or replace pad. The pad should be replaced if it has become matted down to a thickness of 3/8" (9,5 mm) or less. To install or replace the pad, follow these instructions:
 - A. Lock handle in the upright position.
 - B. Tilt the machine back until it fully rests on the handle.
 - C. Standing over the machine, remove existing pad then center new pad over grip face.
 - D. Press pad against grip face until the hooks in the driver have set in the pad (see Figure 3).
 - E. Return machine to the upright position.

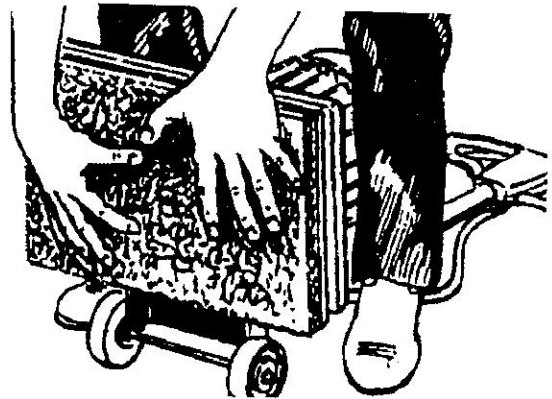


Figure 3

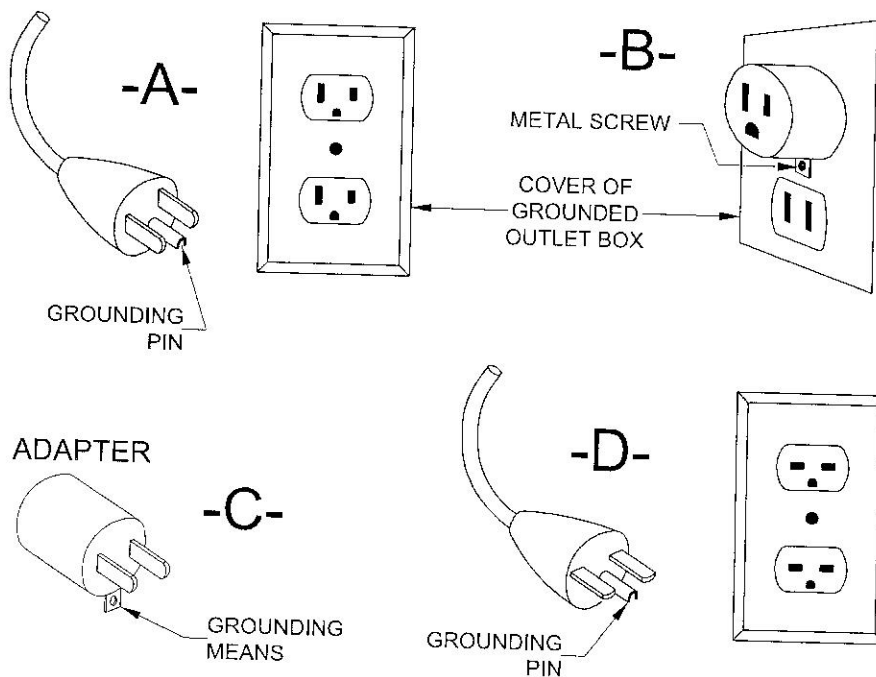
WARNING: Never put yourself or let others be in a position to get injured if the machine should tip or fall, while replacing the pad or changing abrasive.

CAUTION: Damage to the grip face will occur if the machine is operated without a pad or with a pad that is 3/8" (9,5 mm) or thinner

Safety Instructions

This floor-finishing machine shall be grounded while in use to protect the operator from electrical shock. The machine is provided with a three-conductor cord and a three contact grounding attachment plug to fit the proper grounding type receptacle. The green (or green and yellow) conductor in the cord is the grounding wire. Never connect this wire to other than the grounding pin of the attachment plug.

This machine is for use on a nominal 120 volt circuit and has a grounding plug that resembles the plug illustrated as (A) in the sketch. Make sure that the machine is connected to an outlet having the same configuration as the plug. No adapter should be used with this machine.



Dust Collection

This sanding machine is designed to be operated with a remote vacuum, dust collection system or with the included dust bag

Preparing Remote Vacuum Dust Collection Systems

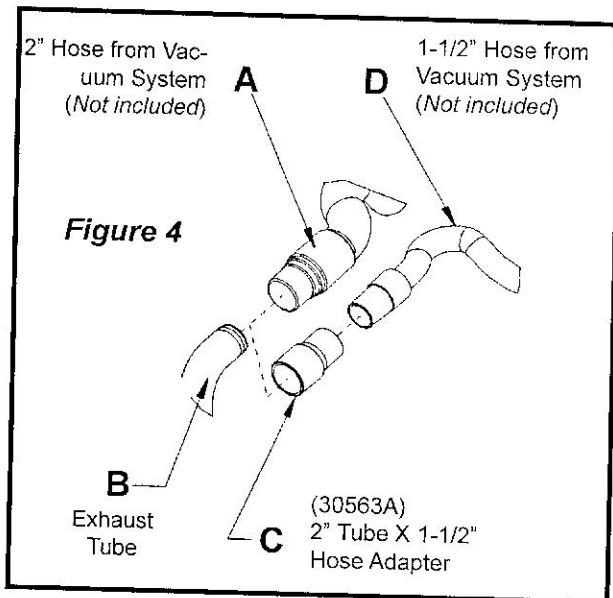
To prepare the machine for remote vacuum dust collection systems that have a 2" hose end, follow this procedure:

1. Install 2" hose end (Figure 4 - A) directly into the exhaust tube (Figure 4 - B).
2. The exhaust tube can be rotated for optimum convenience.

To prepare the machine for remote vacuum dust collection systems that have a 1-1/2" hose end, follow this procedure:

1. Install 2" hose end (Figure 4 - A) directly into the exhaust tube (Figure 4 - B).
2. The exhaust tube can be rotated for optimum convenience.

NOTE: Start the remote vacuum collections system before operation.

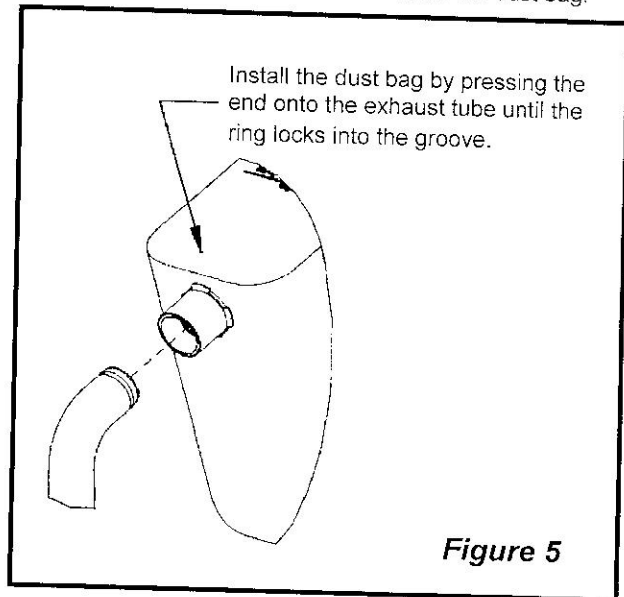


Preparing Using the Dust Bag

To prepare the machine for use with the included dust bag (Part No.53741A), follow this procedure:

1. Install the dust bag by pressing the end onto the exhaust tube until the ring locks into the groove (Figure 5). This is best done by pressing on the back of the bag opening with the palm of your hand.
2. The exhaust tube can be rotated for optimum convenience.
3. To remove the dust bag from the exhaust tube, pry up the end of the bag opening to partially release the internal rib from the groove, then pull.
4. To empty the dust bag, unzip the disposal flap and force contents out by inverting the bag.

NOTE: For best results, empty frequently. Follow all warnings posted in this manual and on the dust bag.



Operating Instructions - Sanding

To operate the machine as a sander follow this procedure:

1. Move machine to work location. Decide the best approach to sanding the desired area. When sanding the area, work so that you are moving away from the power supply. This will help to avoid entanglement with the power cord and reduce the need to move the power cord as frequently.
2. Install the abrasive (see *Sanding Cuts & Sandpaper*). Use the same procedure outlined in "MACHINE SETUP" for installing the pad, to install the abrasive. Peel the film off the back of the abrasive; center the abrasive over the pad and press it against the pad. The adhesive on the abrasive will hold it to the pad.

NOTE: When using screen abrasive, set the screen on the floor then move the machine over the screen. Lower the machine until the pad comes to rest on the screen. Make sure the screen is centered on the pad.

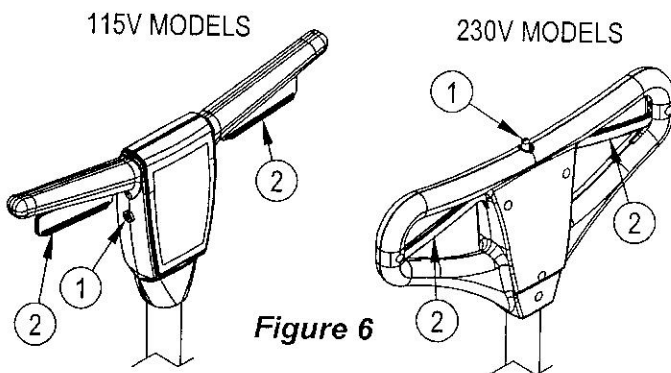
WARNING: Injury can occur if the machine is connected to a power source while installing the pad or abrasive. Disconnect the machine before installing the pad/abrasive.

3. Connect the machine to an appropriately fused and grounded circuit.
4. Release the handle by pressing up on the locking lever. Bring the handle to a comfortable position.

CAUTION: Do not lock the handle. Locking the handle will prevent the machine from resting evenly on the pad and diminish the machine performance and reliability.

5. Push the interlock button (1), and apply pressure to the levers (2). To stop the machine, release the levers (2) (see *Figure 6*).

CAUTION: To prevent damage to the flooring and to reduce swirling, keep the machine in motion while the motor is running.



Operating Instructions - Polishing

To operate the machine as a polisher follow this procedure:

WARNING: Injury can occur if the machine is connected to a power source while installing the pad or abrasive. Disconnect the machine before installing the pad/abrasive.

1. Connect the machine to an appropriately fused and grounded circuit.
2. Release the handle by pressing up on the locking lever. Bring the handle to a comfortable position.

CAUTION: Do not lock the handle. Locking the handle will prevent the machine from resting evenly on the pad and diminish the machine performance and reliability.

3. Push the interlock button (1), and apply pressure to the levers (2). To stop the machine, release the levers (2) (see *Figure 6*).

CAUTION: To prevent damage to the flooring and to reduce swirling, keep the machine in motion while the motor is running.

Sanding Cuts & Sandpaper

Initial Cut:

The purpose of the initial cut is to remove old finish and gross imperfections on the floor surface. Use a course (20-36 grit) grain abrasive.

Final Cuts:

The purpose of a finishing cut is to remove the scratches produced during the initial cut. Use a fine (60-80 grit) grain abrasive. If the surface remains rough after a finishing cut, it may be necessary to use an even finer grain of abrasive (80-100grit). Care should be taken in selecting the grit size of the abrasive. A very fine grain will close the pores on a wood floor making admission of a stain difficult. If glazing or burning should occur the abrasive has dulled and must be replaced.

Troubleshooting

Problem	Possible Cause	Action
Motor will not start.	No Power.	Check power supply and connection.
	Interlock not depressed.	Depress interlock before activating control lever.
	Defective switch / bad connection.	Contact an authorized American Sanders Dealer.
Motor fails to start / runs sluggish.	Low voltage from excessive length or undersized extension cord.	Use a 12 Ga. extension cord, not to exceed 50 feet (15m) length.
	Defective start capacitor.	Contact an authorized American Sanders Dealer.
	Defective start switch.	Contact an authorized American Sanders Dealer.
	Defective run capacitor.	Contact an authorized American Sanders Dealer.
	Defective motor.	Contact an authorized American Sanders Dealer.
Fuse / circuit breaker repeatedly trips.	Low voltage.	Eliminate extension cord.
		Locate power source closer to work site.
		Have voltage checked by a qualified electrician.
	Bad connection.	Contact an authorized American Sanders Dealer.
	Defective motor.	Contact an authorized American Sanders Dealer.