

Operator's Manual



U.S. Patent No. 6,494,772

READ THIS MANUAL

This manual has important information for the use and safe operation of this machine. Read and understand this manual before starting this machine. Keep this manual. If you do not follow the instructions, you can cause personal injury or damage equipment.

For a copy of this manual:

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under Customer Help

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November 2014**

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OPERATOR SAFETY INSTRUCTIONS

COMMERCIAL USE

For the safe operation of this machine, read and understand all warnings and cautions.

Look for this symbol:

“WARNING”: If you do not follow the instructions in a **WARNING, injury can occur to you or to other personnel.**

“CAUTION”: If you do not read and follow instructions **completely, damage can occur to the machine.**

WARNING: You must be qualified for the operation of this machine before using it.
READ THE INSTRUCTION MANUAL.

WARNING: Machines can cause flammable materials and vapors to burn. Do not use this machine with or near matches, fuels, grain dust, solvents, thinners, or other flammable materials.

WARNING: Do not use on wet surfaces.

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.

WARNING: Do not allow machine to be used as a toy. Close attention is Necessary when used by or near children.

WARNING: Use only as described in this manual. Use only manufacturer’s recommended attachments.

WARNING: Do not use with damaged cord or plug. If machine is not working as it should, has been dropped, damaged, left outdoors, or dropped into water, return it to the rental center.

WARNING: Do not leave machine when plugged in. Unplug from outlet when not in use and before servicing.

WARNING: Do not pull or carry by cord, use cord as a handle, close a door on cord, or pull cord around sharp edges or corners. Do not run appliance over cord. Keep cord away from heated surfaces.

WARNING: Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.

WARNING: To prevent injury, always remove the electrical plug from the electrical outlet before changing the sandpaper, emptying the bag, leaving the machine, or doing any maintenance to this machine.

WARNING: Do not handle plug or machine with wet hands.

WARNING: Do not put any object into vacuum openings. Do not use with any opening blocked; keep free of dust, lint, hair, and anything that may reduce air flow.

WARNING: Keep hair, loose clothing, fingers, and all parts of body away from openings and moving parts.

WARNING: Turn off all controls before unplugging.

WARNING: Do not use machine to pick up flammable or combustible liquids, such as gasoline, or use in areas where they may be present.

WARNING: To prevent fire explosion when emptying the dust bag:

1. Remove the contents of the dust bag when the bag is 1/3 full.
2. Remove the contents of the dust bag each time you finish using the machine.
3. Do not put the contents of a dust bag into a fire.

WARNING: Do not use machine without proper dust bag. Black Bag with yellow writing and Fire Lock Logo US-VBAS14.

WARNING: To prevent damage to the power cable, do not let the sandpaper touch the power cable when the machine is running. Always lift the power cable over the machine.

GROUNDING INSTRUCTIONS

This machine must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This machine is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be inserted into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

WARNING: Improper connection of the equipment-grounding conductors can result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded. Do not,

BACKER PAD/DUST SKIRT INSTALLATION

1. Use $\frac{3}{4}$ " open end wrench to hold lower shaft and turn backer pad clockwise to install.
2. **HAND TIGHTEN ONLY!**
3. Set machine upright on floor.
4. Attach the removable part of the dust skirt (US115-146) to the lower part of the deck plate so that the skirt just touches the floor. (if not properly installed the vacuum system may not operate to its full potential).



INSTRUCTIONS

WARNING:

1. Make sure the Sander switch is in the OFF position before you plug the unit in.
2. Never change the sandpaper while the sander is plugged in.
3. Check breaker circuit to be used, 20 amp is the minimum required.
4. Always wear eye protection, ear protection and dust mask while operating the sander.
5. Empty the vacuum system in an area away from flammable materials and flame or fire.

TOOLS NEEDED

1. Hammer
2. Pry bar; to remove trim
3. Paint scraper; to scrape corners and hard to reach places.
4. Nail set
5. Vacuum system; using a 1.5" ID vacuum hose to collect dust created by sanding process.
6. Plastic draping; to cover and isolate work areas.
7. Masking tape
8. Wood filler
9. Mineral spirits and or tack cloths; to remove fine dust particle prior to coating floor with finish.

ROOM SETTING AND FLOOR CHECK

1. Remove all existing furniture, carpets, floor mats, clutter, and curtains from the area to be sanded. Sweep the floor thoroughly.
2. Remove all nails, and metal fasteners that protrude from the surface to be sanded. These items may damage sanding pads, sandpaper or prevent effective sanding.
3. Check for cracks and niches in the area to be sanded and repair damaged areas. Excessive damage may be repaired with wood filler (allow sufficient drying time). Follow wood filler manufacture instructions for use.
4. Put dust protection on all doorways and heat vents in the form of drop cloths and plastic sheets. Vacuum the room thoroughly.

CHECKING CONDITIONS OF THE FLOOR

Check for condition of floor using one of the following tests and follow appropriate directions:

Wax Floor:

Place a damp cloth (approx. 18" x 18") on the floor. Lift after an hour and check for any cloudy coloration. A white cloudy coloration indicates wax. In this case, strip the wax using a wax stripper before sanding is attempted. Excess wax will clog the sandpaper.

Painted Floor:

Chemically remove paint before attempting to sand floor.

Varnished Floor:

U-Sand® equipment will remove most kinds of varnish. Excessive layers of varnish, however, may require chemical removal before attempting to sand the floor.

Unfinished Floor:

Start the sanding process with the least aggressive grit as possible, progressing to the finer grits of sandpaper ranging from 24 grit (the most aggressive/coarse) 36, 40, 60, 80, 100, 120 grit (less aggressive, coarse). Etc.

OPERATING THE U-SAND® EQUIPMENT

WARNING: Always remove the electrical plug from the electrical outlet before installing and changing the sandpaper.

Select the paper to start:

Select the least aggressive grit as possible that removes the desired amount of surface. Too aggressive grits leave swirl marks that are difficult to remove with finer grits that will be used later. Grits that are not aggressive enough do not take enough of the surface off and result in more work and a slower process

Installing Paper:

Sandpaper should be installed by leaning the machine back and placing the sandpaper on the backer pads (BP6).

Changing Sandpaper:

Paper should be changed when you notice less pull when running the equipment and see less material being removed by the process (10-15 minutes).

CAUTION: To prevent damage to backer pads, you must change sandpaper when it becomes loaded or clogged.

STARTING THE SANDING PROCESS

Before operating the machine, make sure the handle adjusting lever is tight.

Empty the vacuum system when full into a metal canister away from your workspace and other

Flammable materials (this may need done several times during the process).

Remove the vacuum system from the unit when not in use and empty contents as instructed above.

STEP 1:

Determine the condition of the floor. We recommend starting with 36 grit (24 grit for severely damaged or heavy polyurethane floors). Lean the machine back on its handle. Attach the sandpaper to the backer pads. Sandpaper usage will depend on the finish to remove, and the amount of wood that needs to be removed.

STEP 2:

With the U-Sand® equipment in the upright position, turn the switch on and slowly move the sander over the floor, letting the machine do the work for you. For new installation it is recommended to move the machine across the grain, this is the most effective way to level the floor. (change Sandpaper when it appears plugged or dull).

Proper Grit Sequence:

- 24 if needed
- 36 for leveling
- 40 sand thoroughly
- 80 final sanding and clear finish
- 120 recommended for staining

STEP 3:

After sanding the floor completely, with the first grit, vacuum the floor thoroughly and change paper to the next finer grit. Continue the sanding

process. Check paper after sanding about a 10' x 10' area to see that the paper is still sanding. Inspect the floor to see if any swirl marks remain. If swirl marks exist, continue to sand just the area with the higher grit paper until they are less visible. You should get down close to the floor and view it from several directions in good light for this inspection.

STEP 4:

Use progressively higher grits. Sand the floor completely. This step will take less time than the previous grits. Check sandpaper often to make sure it is clean and effective.

STEP 5:

Inspect the floor thoroughly for scratches or unevenness. Apply the final finishing grit (usually 120 or 180 grit). At this point, the floor should become smooth and free of all swirl marks when inspected closely.

STEP 6:

Corners and edges and be sanded with a detail sander or hand scraper. A paint scraper can be used for hard to reach areas, such as: under radiators, and in corners. Some hand sanding may be necessary in these remove places. Inspect the floor thoroughly to determine when you are finished sanding.

STEP 7:

Vacuum the floor and clean with a tack cloth (available at your local hardware store). Then apply stain or varnish as desired. Follow manufacturer's recommendations for staining and finishing.

STEP 8:

WARNING: Machines can cause Flammable materials and vapors to burn. Do not use this machine with or near matches, fuels, grain dust, solvents, thinners, or other flammable materials.

WARNING: To prevent injury always remove the electrical plug from the electrical outlet before changing the

Sandpaper, emptying the bag, leaving the machine, or doing any maintenance to this machine.

REMOVING THE DUST BAG:

Unlock the Velcro straps and then remove the dust tube from blower. Empty the bag into a metal or non-flammable container away from your work area. **DO NOT LEAVE DUST BAG ON THE UNIT WHEN NOT IN USE.** Remove from machine when not in use for two (2) minutes or more and store in a metal container away from flammable objects. **DO NOT TRANSPORT MACHINE WITH DUST BAG ATTACHED.** Remove from unit, empty and carry separately.

ADJUSTING THE HANDLE POSITION

Loosen the black knob (US146-146) and then adjust the handle position as desired. Tight the black knob once adjusted.

PROPER STORAGE OF THE POWER SUPPLY CORD

Wrap the power cord around the frame of the machine for storage. Then, adjust the handle to the lowest position and store machine in an upright position.



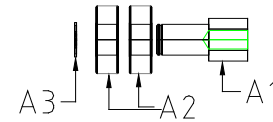
CLEANING AND STORAGE

Remove the dust system from the unit. Discard contents away from work area in a non-flammable area. Wipe the exterior of the unit with a damp cloth. Leave the last grit of sandpaper on the backer pads for transport and storage. This will protect the hook and loop of the backer pads.

US-146 Parts

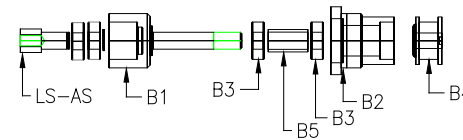
U-SAND FLOOR SANDER
US-146 MODEL
PARTS LIST
November 2014

LS-AS LOWER SHAFT ASSEMBLY



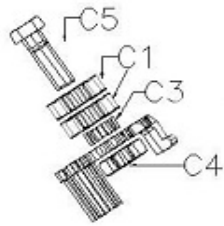
- A1 Lower Shaft (US104-146) (1)
- A2 Bearings (HW-BRG) (2)
- A3 Snap Ring (HW-ESR) (1)

SP-AS SPINDLE ASSEMBLY



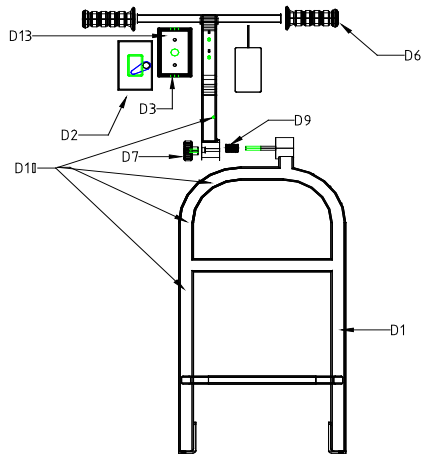
- LS-AS (1)
- B1 Main Shaft (US103-146) (1)
- B2 Spindle Housing (US101-146) (1)
- B3 Bearings (HW-BRG) (2)
- B4 Spindle Pulley (US106-146) (1)
- B5 Upper Shaft Bearing Spacer (US105-146-7) (1)

BT-AS BELT TENSION ASSEMBLY



- C1 Bearing (HW-BRG) (2)
- C3 Belt Tension Sub (US-148) (1)
- C4 HW-HCS5/8 (1)
- C5 HW-HN11 (1)

HA-AS HANDLE ASSEMBLY



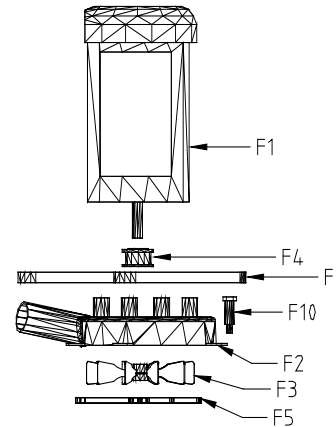
- D1 Handle Unit Sub (HAAS1)
- D2 Switch (US119-146-7SWITCH) (1) AND Cover (US119-146-7COVER) (1)
- D3 Switch Box (US120-146) (1)

- D4 43" Yellow Cord (PC-146B)-not shown
 - D5 17" Yellow Cord (PC-146-MLP) (1)-not shown
 - D6 Rubber Grips (US114-146) (2)
 - D7 Knob for handle pivot (US142-146) (1)
 - D8 Cord Restraint (US134-146) (2)-not shown
 - D9 1" spring (HW-SP1) (1)
 - D10 Motor Clamp (HW-1/2 RL Clamp) (4)
 - D11 Cap Screws (HW-HWSL) (6)
 - D12 Wire Nuts (HW-WN) (1)
 - D13 Spade for Elec Box (HW-SPADE) (1)
 - D14 25' Yellow Cord (PC-146-FLP) (1)-not shown
- | | | |
|----|----------|-----------------|
| BB | PC-L515R | Female end 110V |
| CC | PC-L515P | Male end 110V |

US-VBAS14 FL VACUUM BAG ASSEMBLY

- E1 FL Vacuum Bag (US-BAG14) (1)
- E2 Vacuum hose/clamp set (US-H/CL14) (1)

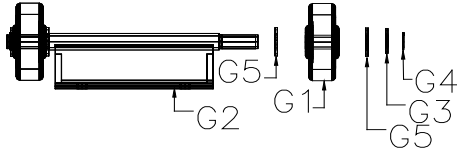
MT-AS MOTOR ASSEMBLY



- F1 1.5 HP Motor (Motor 1.5HP) (1)
- F2 Fan Housing (US103-146) (1)
- F3 Impeller/Hub (MT-AS1) (1)
- F4 Motor Pulley (US116-146) (1)
- F5 Gasket (US-152) (1)
- F6 Belt (PCB-146) (1)
- F7 Cap Screw-Blower/Motor (HW-CS3/8) (4)

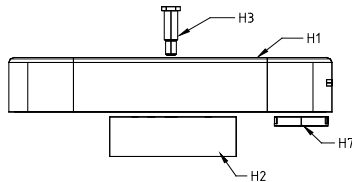
- F8 Cap Screw-Impeller (HW-CS5/16) (1)
- F9 Pulley Set Screw (HW-SS) (1)
- F10 Spring Bolt-Blower (HW-3/8 Spring Bolt) (1)
- F11 Wire Nuts (HW-WN) (5)

WH-ASP WHEEL ASSEMBLY



- G1 3.5" Wheels (WH-146P) (2)
- G2 Wheel Bracket/Axle (Wh-AS1) (1)
- G3 Wave Spring (HW-WS) (2)
- G4 External Snap Ring (HW-ESR) (2)
- G5 Flat Washer (HW-W1) (4)

DP-AS DECK PLATE



- H1 Base Plate (CH101-146) (1)
- H2 Counter Weight (US132-146) (1)
- H3 Belt Tension Bolt (US-150) (1)
- H4 Hex Cap Screw (HW-HCS) (2)
- H5 Dust Skirt Attached (US115-146B) (1)
- H6 Lock Washer (HW-LW) (2)
- H7 Spindle Housing Nut (US102-146) (4)

US-146 SANDER

- I1 Nuisance Tag (US-143) (1)
- I2 UL Listed Tag (US-145) (1)
- I3 American Flag (LABL-FLAG) (1)
- I4 Rivets (HW-RVT) (10)
- I5 Orange Bag Safety (US148) (1)
- I6 Belt Cover (CH02-146) (1 set 2 pc)
- I7 Motor Clamps Cap Screws (HW-CS1/4) (6)
- I8 Flat Washer (HW-FW/16) (6)
- I9 Lock Nut-Motor (HW-CLN) (1)
- I10 Cord Restraint (US134-146) (1)
- I11 Flat Washer (HW-FW3/8) (4)
- I12 spring (HW-SP3/4) (2)

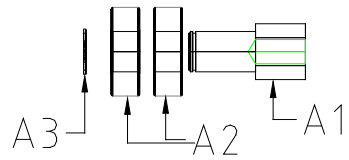
ACCESSORY ITEMS US-146

- J13 Dust Skirt (US115-146) (1)
- J14 Backer Pads (BP6) (4)

US-Pro Parts

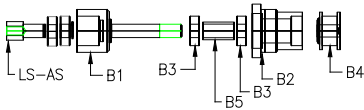
U-SAND FLOOR SANDER
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 PARTS LIST
 November 2014

LS-AS LOWER SHAFT ASSEMBLY



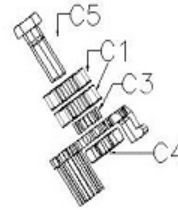
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- A2 Bearings (HW-BRG) (2)
- A3 Snap Ring (HW-ESR) (1)

SP-AS-C SPINDLE ASSEMBLY



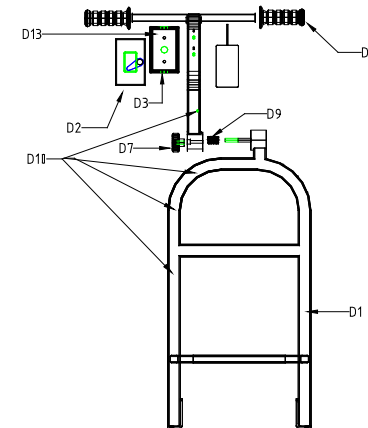
- LS-AS (1)
- B1 Main Shaft (US103-146C) (1)
- B2 Spindle Housing (US101-146C) (1)
- B3 Bearings (HW-BRG) (1)
- B4 Spindle Pulley (US106-146) (1)
- B5 Upper Shaft Bearing Spacer (US104-146-7) (1)

BT-AS BELT TENSION ASSEMBLY



- C1 Bearing (HW-BRG) (2)
- C3 Belt Tension Sub (US-148) (1)
- C4 HW-HCS5/8 (1)
- C5 HW-HN11 (1)

HA-AS-C HANDLE ASSEMBLY



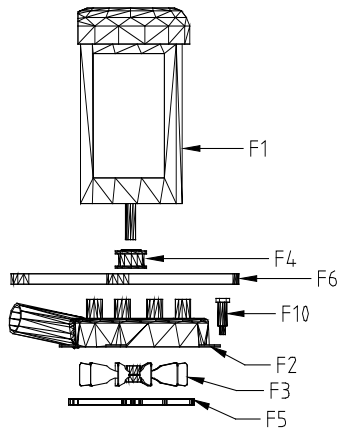
- D1 Handle Unit Sub (HAAS1C)
- D2 Switch (US119-146-7switch) (1) and Cover (US119-146-7cover) (1)
- D3 Switch Box (US120-146-7) (1)

- D4 43" Grey Cord (PC-146C)-not shown
 - D5 17" Grey Cord (PC-146-MLPC) (1)-not shown
 - D6 Rubber Grips (US114-146) (2)
 - D7 Knob for handle pivot (US142-146) (1)
 - D8 Cord Restraint (US134-146) (2)-not shown
 - D9 1" spring (HW-SP1) (1)
 - D10 Motor Clamp (HW-1/2 RL Clamp) (4)
 - D11 Cap Screws (HW-HWSL) (6)
 - D12 Wire Nuts (HW-WN) (1)
 - D13 Spade for Elec. Box (HW-SPADE) (2)
 - D14 25' Grey Cord (PC-146-FLPC) (1)-not shown
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| CC | PC-L515P | Male end 110V |

US-VBAS14 FL VACUUM BAG ASSEMBLY

- E1 FL Vacuum Bag (US-BAG14) (1)
- E2 Vacuum hose/clamp set (US-H/CL14) (1)

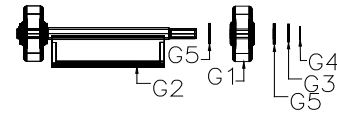
MT-AS-CMOTOR ASSEMBLY



- F1 1.5 HP Motor (Motor 1.5HP-C) (1)
- F2 Fan Housing (US103-146) (1)
- F3 Impeller/Hub (MT-AS1) (1)
- F4 Motor Pulley (US116-146) (1)
- F5 Gasket (US-152) (1)
- F6 Belt (PCB-146) (1)

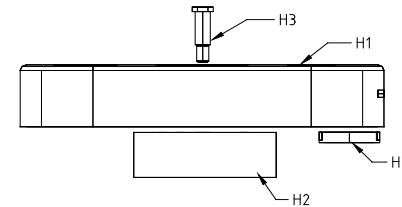
- F7 Cap Screw-Blower/Motor (HW-CS3/8) (4)
- F8 Cap Screw-Impeller (HW-CS5/16) (1)
- F9 Pulley Set Screw (HW-SS) (1)
- F10 Spring Bolt-Blower (HW-3/8 Spring Bolt) (1)
- F11 Wire Nuts (HW-WN) (5)

WH-ASP WHEEL ASSEMBLY



- G1 3.5" Wheels (WH-146P) (2)
- G2 Wheel Bracket/Axle (Wh-AS1) (1)
- G3 Wave Spring (HW-WS) (2)
- G4 External Snap Ring (HW-ESR) (2)
- G5 Flat Washer (HW-W1) (4)

DP-AS-C DECK PLATE



- H1 Base Plate (CH101-146-C) (1)
- H2 Belt Tension Bolt (US-150) (1)
- H3 Hex Cap Screw (HW-HCS) (2)
- H4 Dust Skirt Attached (US115-146B) (1)
- H5 Lock Washer (HW-LW) (2)
- H6 Spindle Housing Nut (US102-146) (4)

US-PRO SANDER

- I1 Nuisance Tag (US-143) (1)
- I2 UL Listed Tag (US-145) (1)
- I3 American Flag (LABL-FLAG) (1)
- I4 Rivets (HW-RVT) (10)
- I5 Orange Bag Safety (US148) (1)
- I6 Belt Cover (CH02-146C) (1 set 2 pc)
- I7 Motor Clamps Cap Screws (HW-CS1/4) (6)
- I8 Flat Washer (Hw-FW/16) (6)
- I9 Lock Nut-Motor (HW-CLN) (1)
- I10 Cord Restraint (US134-146) (1)
- I11 Flat Washer (HW-FW3/8) (4)
- I12 spring (HW-SP3/4) (2)

ACCESSORY ITEMS US-146

- J13 Dust Skirt (US115-146) (1)
- J14 Backer Pads (BP6) (4)