



OPERATORS MANUAL

ASTRO 17" & 20" DUAL SPEED FLOOR MACHINES

HP1517-2S

&

HP1520-2S

SERVICE INFORMATION

To obtain consistent performance over the life of your AML equipment, read through these instructions and save them for future reference. If you require service, contact the dealer from which the machine was purchased or an authorized service station. Always refer to your Limited Warranty for complete service information.

AML EQUIPMENT AND SUPPLY LTD.		CUL
SERIAL NO.	MODEL	
VOLTS	PHASE	HZ
MOTOR	AMPS	H.P.

The model, type and serial number are indicated on the data plate on the side of the handle. For prompt and complete service, refer to these numbers when inquiring about service.

Write the model and serial number of your unit in the space provided. Refer to the data plate on unit.	
MODEL # _____	SERIAL# _____
Retain this owner's manual for future reference	

IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic precautions should always be followed, including the following:

READ ALL INSTRUCTIONS BEFORE USING THIS FLOOR FINISHING MACHINE.

WARNING: ELECTRIC SHOCK CAN CAUSE SERIOUS INJURY OR BE FATAL. PLEASE READ THE FOLLOWING INSTRUCTIONS ON THE USE AND OPERATION OF THE AML FLOOR FINISHING MACHINES.

Your floor machine is equipped with a safety switch lock and power switch triggers designed for your safety. Do not attempt to bypass or defeat the safety switch lock. Never use any device to lock the power switch triggers in the "ON" position.

Do not leave the floor machine when plugged in. Turn off the switch and unplug the electrical cord when not in use and before servicing or changing the brushes or pads.

Do not allow the machine to be used as a toy. Close attention is necessary when used near children. Do not leave the machine connected to an electrical outlet unattended.

Use only as described in this manual. Use only manufacturer's recommended attachments.

Do not use with a damaged cord or plug. If the machine is not working as it should, has been dropped, damaged, or left outdoors return it to a service center before using.

Use care to keep the electrical supply cord from contacting the rotating brush or drive block.

Do not pull, close a door on, or pull the cord around sharp edges or corners. Keep the cord away from heated surfaces.

Connect to properly grounded (3-wire) outlet only refer to Grounding Instructions.

Do not use extension cords or outlets with inadequate current carrying capacity.

Turn off all controls before unplugging.

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

Do not handle the plug or floor machine with wet hands.

Wind the cord no tighter than is necessary to retain it during storage. Refer to Cord Storage.

Use extra care when working near stairs.

Do not use in conjunction with flammable or combustible liquids such as gasoline, or use in areas where explosive vapor or dust may be present.

Store your floor machine indoors in a cool, dry area.

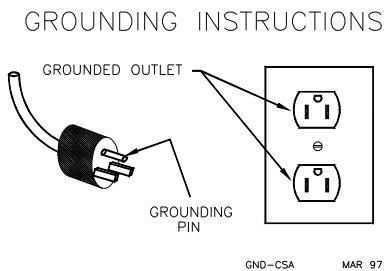
Keep your work area well lighted.

Warning – To avoid electrical shock, use indoors only.

GROUNDING INSTRUCTIONS

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

WARNING: DO NOT USE GROUNDING ADAPTERS ON AML FLOOR MACHINES IN CANADA. CHECK WITH CANADIAN CODES FOR PROPER EQUIPMENT USAGE. IMPROPER USE OF GROUND ADAPTORS CAN CAUSE SERIOUS INJURY, FIRE OR BE FATAL.



OPERATION / ACCESSORIES

CHOOSING THE RIGHT BRUSH AND DRIVE BLOCK

Your floor machine is packed completely assembled and ready for use after you install a brush or drive block. (Brushes and pads are not provided with the unit but are available at an additional cost.) See Optional Accessories, Pg 10.

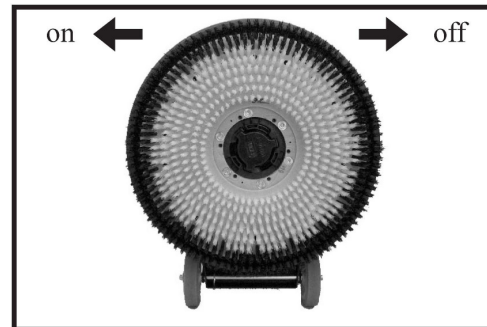
Your AML floor machine is designed to be used for many different floor care applications. Make sure you use the correct brush or pad for the type of job you want to perform (AML Accessories are available from the dealer from whom the floor machine was purchased).

When ordering brushes or drive blocks, refer to the following chart and specify correct brush or block diameter when ordering.

Clutch plate P/N NP9200 is common to all model HP AML floor machines.

BRUSH AND PAD DRIVER INSTALLATION

NOTE: Disconnect the power cord from the electrical outlet before installing a brush or pad driver.



To install a brush or pad driver, leave the handle in the upright position and tip the machine backwards so it rests on its wheels and upper handle section. The brush and pad driver both attaché in the same manner: align the cut-outs on the inner ring of the brush or pad driver with the tabs on the inside of the ring of the drive hub. Push the brush or pad driver with the tabs on the inside of the ring of the drive hub. Push the brush or pad driver firmly in position, then turn it counter-clockwise until it locks into place.

To remove, turn the brush or pad driver clockwise until it stops, then lift it off. **NOTE: Always remove the brush or pad driver when the machine is not in use.**

NOTE: Disconnect power cord from electrical outlet before installing or removing brush, pad, or pad driver.

HANDLE ADJUSTMENT

The handle can be adjusted to any desired work position by simply pushing up on the handle lock. Move the handle to the desired position, then firmly push down on the handle lock which will lock the handle in position.



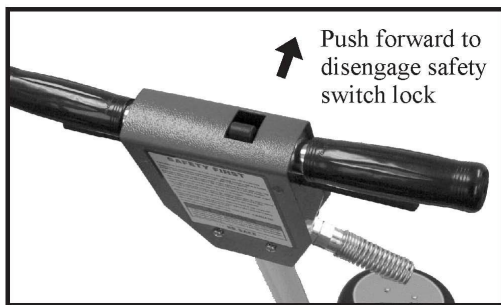
CONTROLS

ON/OFF POWER SWITCH TRIGGERS

The ON/OFF switch is conveniently located in the form of dual triggers underneath the handle grips.

TO TURN THE MACHINE ON

The operation handle must be lowered to the operation position before switching the machine ON. Place both hands firmly on the handle grips with your fingers around the power triggers. Do not apply pressure on the triggers before the safety switch lock is disengaged.



Disengage the safety switch lock by pushing it forward with on thumb. Then, while holding the safety switch lock in disengaged position, squeeze the power triggers toward the handle grips and return your thumb to the handle grip.

To stop the machine, simply release the triggers. The safety switch lock will automatically return to the engaged position.

USING THE HP1520-2S FOR BUFFING

The model HP1520-2S is a two-speed floor machine designed for dual operation, scrubbing or buffing. A toggle switch on the left side of the switch box selects the output speed, 175 RPM for scrubbing or 300 RPM for buffing. Do not operate this floor machine for buffing in low speed, it will not do an effective job and tends to overload the motor unnecessarily.

GUIDELINES FOR OPERATION

Your floor machine is a very sensitive, powerful unit. When in operation, it should be guided gradually and smoothly without sudden or rough motions. You will want to practice with your machine on a smooth surface first until you have experience in operating it.

For ease of operation, always keep the brush or pad surface level, balanced, and flat on the floor at all times.

Always adjust the operation handle to a comfortable height at which the brush or pad surface is balanced before starting the machine. (see "Handle Adjustment").

Your floor machine will operate differently on various surfaces. For example, there will be much more resistance when the machine is used with a brush on carpeted surfaces than when it is used with a pad on a smooth surface. The operator should be prepared to adjust for these differences.

BEGIN OPERATION THE FLOOR MACHINE WITH THE BRUSH OR PAD SURFACE LEVEL, BALANCED AND FLAT ON THE FLOOR.

To move the machine to the right, slowly apply slight upward pressure on the handle.

To move the machine forward or backward, keep brush or pad flat on the floor and push or pull machine in the desire direction.

DO NOT LET THE MACHINE REST ON THE PAD OR BRUSH FOR AN EXTENDED PERIOD OF TIME. This may alter the shape of the pad or brush which may cause the machine to wobble.

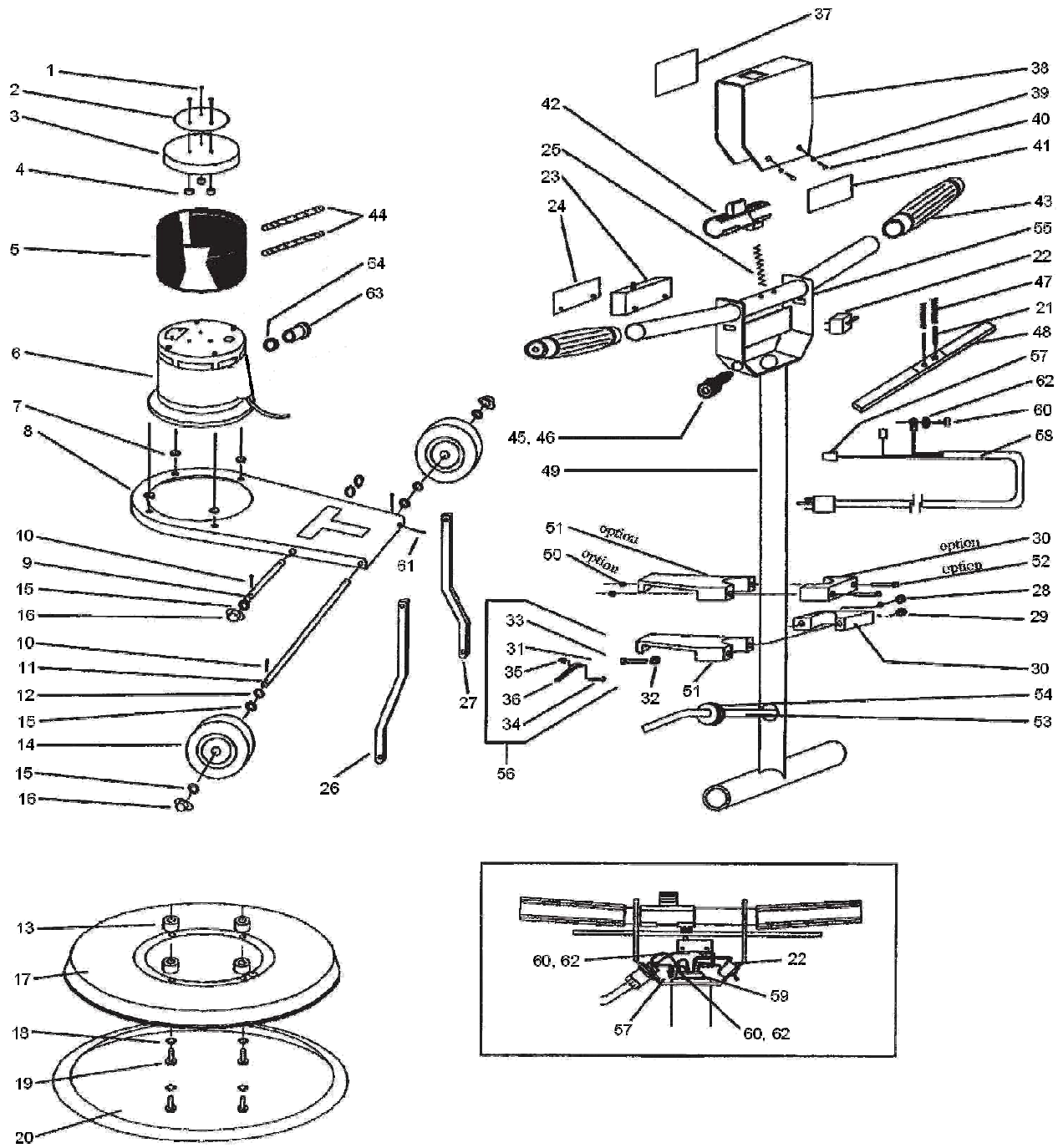
CORD STORAGE

When not in use, loosely wind the power cord around the cord storage hook on the handle shaft and both of the handle grips, as shown.

CLEAN UP AND STORAGE

After being used, your floor machine can be wiped clean with a soft, damp cloth and should be stored in a clean, dry place.

ASTRO DUAL SPEED FLOOR MACHINE PARTS LIST



ITEM #	PART #	DESCRIPTION	QTY
1	H0002	SCREW 10-24 X 1.00" / 10-24 X 0.5"	3
2	L0001	ASTRO LABEL	1
3	C0010-1	COVER, DRIP-MOTOR	1
4	H0003	SPACER, DRIP COVER	3
5	S0016	COVER, MOTOR-SCREEN	1
6	E0005	MOTOR/GEARBOX UNIT ASSEMBLY, 115/60, 1.5 HP	1
7	H0005	LOCKWASHER, 5/16" ID, EXT TOOTH	4
8	W0001P	FRAME-FLOOR MACHINE	1
9	M0006P	SHAFT HANDLE	1

<u>ITEM #</u>	<u>PART #</u>	<u>DESCRIPTION</u>	<u>QTY</u>
10	H0006	COTTER PIN	4
11	M0005P	SHAFT, AXLE	1
12	H0007	SPRING WASHER	2
13	M0004	SPACER, FRAME/BRUSH COVER	4
14	C0004	WHEEL, 5" DIA	2
15	H0008	STEEL WASHER, 33/64" X 7/8"	12
16	H0009	PUSH NUT - 0.50"	4
17	S0003P	BRUSH COVER 17"	1
17	S0004P	BRUSH COVER 20"	1
18	H0010	LOCKWASHER, 5/16" ID	4
19	H0011	SCREW, 5/16" X 2.0 SOC HD	4
20	C0001	BUMPER, 17" BLACK	1
20	C0002	BUMPER, 20" BLACK	1
21	H0012	ROLL PIN	2
22	E0006	SWITCH, HI-LOW	1
23	E0007	SWITCH, ON/OFF	1
24	H0013	INSULATION, SWITCH	1
25	H0014	SPRING	1
26	S0006P	CONNECTING LEG - LEFT	1
27	S0005P	CONNECTING LEG - RIGHT	1
28	H0015	NUT 3/8" - 16 HEX NYLOC STANDARD	1
29	H0057	NUT 3/8" - 16 HEX NYLOC THIN	1
30	C0006P	CLAMP, HANDLE LOCK	1
31	H0001P	WASHER, HARDENED SLOTTED	1
32	H0016	WASHER, 3/8"	3
33	H0017	STUD, CLAMP	1
34	H0018	RIVET, 5/16" X 1.25 LONG RD HEAD	1
35	H0019	PUSH NUT 5/16"	1
36	M0001P	CAM. HANDLELOCK	1
37	L0002	LABEL, SWITCHBOX	1
38	W0003P	COVER ASMEBLY, SWITCHBOX	1
39	H0020	LOCKWASHER, #10 EXT TOOTH	3
40	H0040	SCREW, 10-24 X 0.50 PAN HEAD	2
41	L0005	LABEL, WARNING	1
42	C0003	SWITCH, SAFETY	1
43	C0007	HANDLE GRIP, BLACK	2
44	H0049	SPRING, CLAMP	2
45	H0021	STRAIN RELIEF, POWER CORD	1
46	H0022	NUT, STRAIN RELIEF	1
47	H0023	SPRING, TRIGGER	2
48	S0008P	TRIGGER	1
49	W0002P	HANDLE WELDMENT	1
50	H0024	NUT, 3/8" - 16	2
51	C0008P	CORD HOOK BODY	1
52	H0025	SCREW 3/8" - 16 X 2.0 SOCKET CAP	3
53	E0012	IN-HANDLE CORD, 14-4	1
54	H0028	GROMMET	1
55	E0010	HANDLE ASSEMBLY, COMPLETE	1
56	HP0003	CAM LOCK ASEMBLY	1
57	H0027	NUT, WIRE	1
58	E0003	POWER CORD, 14/3 ST X 50'	1
59	H0047	CLAMP, POWER CORD	1
60	H0040	SCREW, 10-24 X 0.50	2
61	H0031	COTTER PIN	1
62	H0020	LOCKWASHER, #10 EXT. TOOTH	1
63	H0050	STRAIN RELIEF, POWER CORD	1
64	H0022	NUT, STRAIN RELIEF	1

THE AML LIMITED WARRANTY

Your AML equipment which has been manufactured, tested and inspected in accordance with carefully specified engineering requirements, is warranted to be free from defects in material and workmanship. This Limited Warranty is, however, subject to the following qualifications, conditions and limitations which are set forth to provide you and all users of the AML equipment with information concerning the duration, extent, availability and applicability of the AML Limited Warranty, the procedure to be taken to obtain its performance, and the other information concerning the AML Limited Warranty policy.

The AML Limited Warranty is extended to the original end user as follows:

Machines: 3 year parts replacement and 1 year service labor warranty.

Replacement parts guaranteed for 90 days from date of installation against defects in material and workmanship.

This Limited Warranty will not cover damage attribute to the following:

- (1) Improper, unreasonable or negligent use or abuse of the equipment.
- (2) Use of equipment with hot water or high temperature above 130 degrees Fahrenheit (Solution Tanks)
- (3) Abrasions or punctures of the equipment.

The start date of the Limited Warranty coverage shall be the purchase date of the original end user or six months from the date the machine was shipped from the Factory, whichever comes first.

PARTS OF AML EQUIPMENT NOT COVERED BY THE LIMITED WARRANTY

Certain parts of AML equipment require replacement in the ordinary course of use due to normal wear by reason of their characteristics. Normal wear items such as cords, switches, bumpers, carbon brushes, handle grips, bearings, etc. are excluded from the Limited Warranty.

EXCEPTIONS AND EXCLUSIONS FROM THE LIMITED WARRANTY

This equipment is required to be used on electric current as indicated on the data plate. Otherwise damage, defects, malfunctions or other failure of the equipment arising from use on electric current not as indicated are accepted and excluded from this Limited Warranty. Defects, malfunctions, failure or damage of the equipment caused by improper, unreasonable or neglect use or abuse while in possession of the purchaser are likewise excluded from this warranty. If repair is done on your equipment by anyone other than those designated as authorized to perform such work without first having obtained factory instructions, AML EQUIPMENT at its sole option, may determine that this warranty will not apply and that reimbursement for such repair will not be made because of the failure to comply with such factory specified instructions.

PROCEDURE TO BE TAKEN TO OBTAIN PERFORMANCE OF LIMITED WARRANTY REPAIR

To secure repair of the equipment or any warranted parts under this Limited Warranty, the following procedure should be taken. The inoperative equipment or warranted parts, together with satisfactory evidence of the purchase date, must be delivered, with shipping and delivery charges prepaid, to one of the following:

- (1) The dealer from whom purchased:
- (2) Any AML distributor's service department in Canada
- (3) Any AML authorized service station in Canada

If you are unable to locate any of the foregoing, you may write or otherwise communicate with AML EQUIPMENT before repair service is performed by anyone else. In such event, AML EQUIPMENT will provide either the location of a closely available AML distributor service department, or AML authorized service station or other factory instructions. Upon compliance with the above procedure, all warranted defects will be repaired, at no additional charge or costs to the customer, and the repaired product returned to the customer, with model, type and serial number as shown on the data plate of equipment.

REPLACEMENT

In the event of a defect, malfunction or failure of your AML equipment or any warranted part to conform with this warranty, AML may, at its sole option and own expense, replace the equipment or any warranted part with another new identical or reasonable equivalent model or part in lieu of repairing the defect.

NO REFUND OF PURCHASE PRICE

AML will not, as a matter of its Limited Warranty policy, refund the customer's purchase price.

LIMITED WARRANTY REGISTRATION CARD FOR YOUR AML EQUIPMENT AND REQUEST FOR INFORMATION

Your AML distributor from whom you purchased your equipment is responsible for the registration of your Limited Warranty with the factory. Any information or questions you may have concerning your AML equipment for this Limited Warranty may likewise be secured from the factory. This Limited Warranty gives you specific legal rights, and you may also have other rights which vary from province to province.

AML EQUIPMENT AND SUPPLY LTD
(866) 343 6990