

GALAXY FLOOR MACHINE

IMPORTANT SAFETY INSTRUCTIONS

Read all instructions before using or servicing machine.



WARNING: Shock or electrocution hazard. **ALWAYS** unplug machine before performing any maintenance or service.



WARNING: Shock or electrocution hazard. **NEVER** connect this machine to an electrical outlet that is not properly grounded. See grounding instructions.



WARNING: Fire or explosion hazard. **NEVER** use with flammable or combustible materials, such as gasoline, kerosene, or other fuels or volatile solvents to clean floor. **NEVER** operate this machine in an explosive atmosphere.

WARNING: This product contains a chemical known to the state of California to cause cancer and birth defects or other reproductive harm.



WARNING: To reduce the risk of fire, electric shock, or injury:

INTENDED USE

NSS floor machines are intended for commercial use, scrubbing, buffing and burnishing floors in an indoor environment. NSS does not recommend using these machines for any other purpose.

When Using An Electrical Appliance, Basic Precautions Should Always Be Followed, Including The Following:

- **ALWAYS** read and understand all instructions before operating or servicing machine.
- **ALWAYS** use this machine **ONLY** as described in this manual.
- **NEVER** attempt to operate this machine unless you have been trained in its operation.
- **NEVER** allow an untrained person to operate this machine.
- **NEVER** operate this machine with the handle locked in the upright position.
- **NEVER** operate this machine with the handle loose.
- **NEVER** lock the switch lever in the "ON" position or attempt to defeat the automatic switch lock out. The lock out prevents accidental starting of the machine.
- **ALWAYS** unplug the machine when attaching pads or brushes.
- **NEVER** leave the machine plugged in to the electrical outlet when not in use.
- **NEVER** unplug the machine from an electrical outlet until after the machine is turned off.
- **IF** appliance is not working as it should, has been dropped, damaged, left outdoors, or dropped into water, return it to a service center.

- **NEVER** disconnect or modify any switches or safety devices (circuit breaker).
- **NEVER** operate this machine if the cord and/or plug has been damaged, broken, cut, abraded or taped.
- **ALWAYS** replace the entire cord when the cord or plug is damaged in any way.
- **NEVER** handle the machine, cord, or plug with wet hands.
- **NEVER** drop or insert any object into any machine opening.
- **NEVER** operate this machine with any air opening blocked. Keep all air openings free of dust, lint, hair, etc.
- **NEVER** pull or carry the machine by it's electrical supply cord, use the cord as a handle, close a door on the cord, pull the cord around sharp edges or corners, expose to heated surfaces, run machine over cord, or set heavy or sharp objects on the cord.
- **NEVER** unplug by pulling on the cord. To unplug the cord from the outlet, grasp the plug, not the cord.
- **NEVER** allow this machine to be used as a toy. Close attention is necessary when used by or near children.
- **ALWAYS** wear clean tennis shoes or "non-slip" shoes. Leather soled shoes will be extremely slippery when wet.
- **ALWAYS** keep face, fingers, hair or any other body part or loose clothing away from any machine opening or moving part (revolving brush or pad driver).
- **NEVER** spray this machine with water or any liquids.
- **NEVER** operate the machine outdoors.
- **NEVER** expose the machine to rain, snow, or extreme temperatures.
- **ALWAYS** store this machine indoors in a dry, cool area.

ALL REPAIR SERVICE MUST BE PERFORMED BY AN NSS AUTHORIZED DISTRIBUTOR / SERVICE STATION USING ONLY NSS ORIGINAL EQUIPMENT PARTS.

SAVE THESE INSTRUCTIONS



OPERATION MANUAL

GALAXY FLOOR MACHINE

IMPORTANTES INSTRUCTIONS DE SÉCURITÉ

Lisez toutes les instructions avant d'utiliser ou de réparer et faire l'entretien de l'appareil.



AVERTISSEMENT : Danger de choc ou d'électrocution.

TOUJOURS débrancher l'appareil avant tout entretien ou réparation



AVERTISSEMENT : Danger de choc ou d'électrocution.

NE JAMAIS brancher cet appareil à une prise électrique qui n'est pas mise à la terre correctement. Voir les instructions de mise à la terre.



AVERTISSEMENT : Danger d'incendie ou d'explosion.

NE JAMAIS utiliser avec des matériaux inflammables ou combustibles, tels que l'essence, le kérosène ou autres carburants ou solvants volatiles pour nettoyer le plancher.

NE JAMAIS faire fonctionner cet appareil dans un milieu explosif.

AVERTISSEMENT : Ce produit contient un chimique connu à l'état de Californie pour causer les défauts de cancer et naissance ou l'autre mal reproducteur.



AVERTISSEMENT: Pour réduire le risque d'incendies, de choc électrique ou de blessures.

UTILISATION PRÉVUE

Les appareils à plancher NSS sont conçus pour une utilisation commerciale, le récurage, le polissage et le lissage des planchers dans un environnement intérieur. NSS ne recommande pas d'utiliser ces appareils à d'autres fins.

En utilisant un appareil électrique, on doit suivre les précautions de bas, y compris ce qui suit:

- **TOUJOURS** lire et comprendre toutes les instructions avant d'utiliser ou de réparer l'appareil.
- **TOUJOURS** utiliser l'appareil **SEULEMENT** selon la description dans ce manuel.
- **NE JAMAIS** essayer de faire fonctionner cet appareil à moins d'être formé pour son utilisation.
- **NE JAMAIS** permettre à une personne non formée de faire fonctionner cet appareil.
- **NE JAMAIS** faire fonctionner cet appareil avec la poignée verrouillée en position verticale.
- **NE JAMAIS** faire fonctionner cet appareil avec la poignée desserrée.
- **NE JAMAIS** verrouiller le levier interrupteur en position « ON » (marche) ni essayer de contourner le verrouillage automatique. Le verrouillage empêche le démarrage accidentel de l'appareil.
- **TOUJOURS** débrancher l'appareil en fixant les coussinets ou les brosses.
- **NE JAMAIS** laisser l'appareil branché dans la prise de courant lorsqu'il n'est pas utilisé.
- **NE JAMAIS** débrancher l'appareil de la prise de courant avant qu'il ne soit éteint.
- **SI** l'appareil ne fonctionne pas correctement, a été échappé, endommagé, laissé à l'extérieur ou échappé dans l'eau, retournez-le à un centre de service.
- **NE JAMAIS** débrancher ou modifier les interrupteurs ou les dispositifs de sécurité (disjoncteur).
- **NE JAMAIS** faire fonctionner cet appareil si le cordon et / ou la fiche est endommagé(e), brisé(e), coupé(e), usé(e) ou scellé(e) avec un ruban adhésif.
- **TOUJOURS** remplacer tout le cordon lorsque ce dernier ou la fiche est endommagé(e) de quelque façon que ce soit.
- **NE JAMAIS** manipuler l'appareil, le cordon ou la fiche avec les mains mouillées
- **NE JAMAIS** laisser tomber ou insérer un objet dans toute ouverture de l'appareil.
- **NE JAMAIS** faire fonctionner cet appareil lorsqu'une ouverture d'air est bloquée. Garder toutes les ouvertures d'air libres de poussières, peluche, cheveux, etc.
- **NE JAMAIS** tirer ou porter l'appareil par son cordon électrique, utiliser le cordon comme poignée, fermer une porte sur le cordon, tirer le cordon autour de bords ou coins tranchants, exposer à des surfaces chauffées, faire passer l'appareil sur le cordon, ou déposer des objets lourds ou tranchants sur le cordon.
- **NE JAMAIS** débrancher en tirant le cordon. Pour débrancher le cordon de la prise, agripper la fiche non pas le cordon.
- **NE JAMAIS** débrancher en tirant le cordon. Pour débrancher le cordon de la prise, agripper la fiche non pas le cordon.
- **NE JAMAIS** laisser cet appareil servir de jouet. Attention tout particulièrement lorsque l'appareil est utilisé par ou près d'enfants.
- **TOUJOURS** porter des souliers de tennis ou des souliers « antidérapants ». Les souliers à semelles de cuir sont extrêmement glissants lorsqu'ils sont mouillés.
- **TOUJOURS** garder le visage, les doigts, les cheveux ou toute autre partie du corps ou vêtements amples loin de toute ouverture de l'appareil ou pièce mobile (revolving brush or pad driver).
- **NE JAMAIS** pulvériser cet appareil d'eau ou d'autres liquides.
- **NE JAMAIS** faire fonctionner l'appareil à l'extérieur.
- **NE JAMAIS** exposer l'appareil à la pluie, à la neige ou à des températures extrêmes.
- **TOUJOURS** ranger cet appareil à l'intérieur dans un endroit sec et frais.

TOUTES LES RÉPARATIONS DOIVENT ÊTRE EFFECTUÉES PAR UN DISTRIBUTEUR / STATION SERVICE AUTORISÉ(E) NSS UTILISANT SEULEMENT DES PIÈCES ORIGINALES NSS.

CONSERVER CES INSTRUCTIONS

IMPORTANT SAFETY INSTRUCTIONS

GROUNDING OF ELECTRICAL EQUIPMENT



WARNING: Improper connection of the equipment-grounding conductor 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 modify the plug provided with the machine. If outlet is not suitable for safe use; have a proper outlet installed by a qualified electrician.

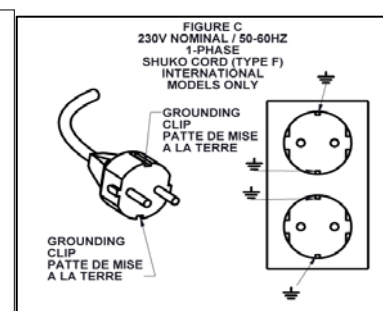
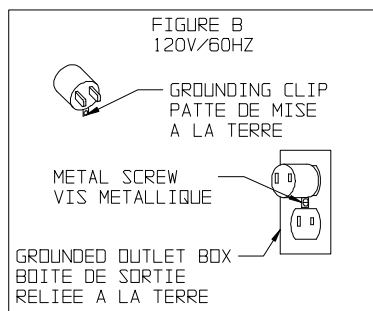
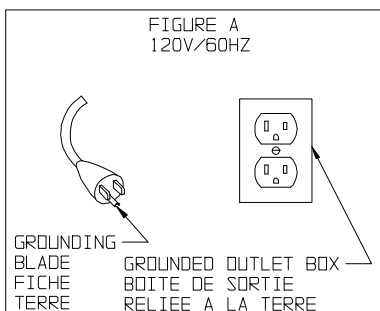
Always use a properly grounded 3-wire extension cord, which has male and female plugs. If 25 foot extension cords are used, the electrical carrying capacity should be no less than 14-3 ST. 50-foot extension cords no less than 12-3 ST.

GROUNDING INSTRUCTIONS

This machine shall be grounded while in use to protect the operator from electric shock. The machine is provided with a three-conductor cord and a three-contact grounding type attachment plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances. The green conductor in the cord is the ground wire. Never connect this wire to other than the grounding pin of the attachment plug.

Check nameplate on the machine to be sure **voltage** and **cycle** stated is the same as the electrical outlet. Do not attempt to plug a 120-volt machine into a 240-volt outlet or a 240-volt machine into a 120-volt outlet. If the machine is provided with an attachment plug as shown in Figure A. below, it is intended for use on a nominal 120-volt circuit. If a properly grounded receptacle as shown in Figure A. is not available, an adapter may be installed as shown in Figure B. if the outlet box that houses the receptacle is grounded. Be sure to fasten the grounding tab (the green colored rigid ear, lug or the like extending from the adapter) with a metal faceplate screw.

If the machine is provided with an attachment plug as shown in Figure C., it is intended for use on a nominal 240-volt circuit. Changes to the attachment plug or use of adaptors to other plug types must be done in accordance with local regulations.



NOTE: In Canada, the use of a temporary adaptor may not be permitted by Canadian electrical code.

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IMPORTANTES INSTRUCTIONS DE SÉCURITÉ

MISE À LA TERRE DE L'ÉQUIPEMENT ÉLECTRIQUE



AVERTISSEMENT : Toute mauvaise connexion de l'appareil-conducteur de mise à la terre peut mener à un risque de choc électrique. Vérifier auprès d'un électricien ou d'un réparateur qualifié si vous avez des doutes quant à la mise à la terre appropriée de la prise. Ne pas modifier la fiche fournie avec la machine. Si la sortie n'est pas adapté pour une utilisation sécuritaire ; avoir une bonne sortie installée par un électricien qualifié.

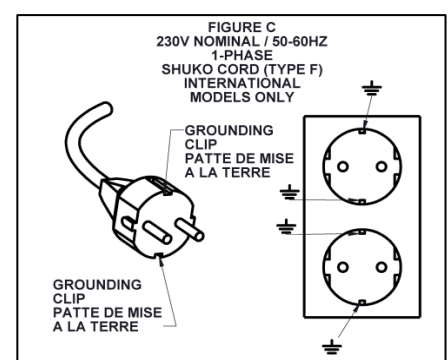
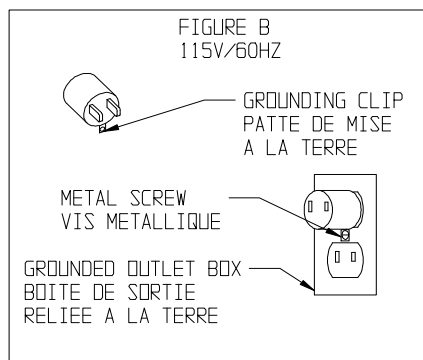
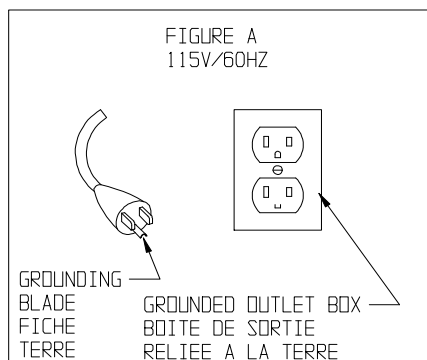
Toujours utiliser une rallonge à 3 fils mise à la terre et à prises mâle et femelle. Si vous utilisez une rallonge de 25 pieds, la capacité électrique de transport doit être d'au moins 14-3 ST., les rallonges de 50 pieds d'au moins 12-3 ST.

INSTRUCTIONS DE MISE À LA TERRE

Cet appareil doit être mis à la terre lorsqu'il est en marche pour protéger l'opérateur de tout choc électrique. L'appareil est fourni avec un cordon à 3 conducteurs et une fiche de branchement masse à trois contacts. La fiche doit être branchée dans une prise appropriée, installée et mise à la terre correctement selon tous les codes et ordonnances locaux. Le conducteur vert du cordon est le fil de masse. Ne jamais brancher ce fil à autre chose que la broche de masse de la fiche de branchement.

Vérifier la plaque signalétique de l'appareil pour être certain que la **tension** et le **cycle** indiqués sont les mêmes que la prise électrique. Ne pas essayer de brancher un appareil de 120 volts à une prise de 240 volts ou un appareil de 240 volts à une prise de 120 volts. Si l'appareil est fourni avec une fiche de branchement tel qu'indiqué dans la figure A. plus bas, il doit donc être utilisé avec un circuit nominal de 120 volts. S'il n'y a pas de prise mise à la terre telle qu'indiqué dans la figure A. disponible, on peut installer un adaptateur tel qu'indiqué dans la figure B. si la boîte à prises est mise à la terre. S'assurer d'attacher la patte de mise à la terre (boucle, cosse rigide de couleur verte ou quelque chose de semblable sortant de l'adaptateur) avec une vis de plaque signalétique de métal.

Si l'appareil est fourni avec une fiche de branchement tel qu'indiqué dans la figure C., il doit donc être utilisé avec un circuit nominal de 240 volts. Modifications du prise ou le rallonge a d'autres types de prises doit se faire en conformité avec les règlements du pays.



REMARQUE : Au Canada, l'utilisation d'un rallonge temporaire peut être interdite par le code canadien de l'électricité.

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CONSERVER CES INSTRUCTIONS



NOISE AND VIBRATION

NOISE

Sound pressure level at Operator position. 65dB(A)

VIBRATION

Weighted RMS acceleration value .436 m/s²
(ISO 5349)

ASSEMBLY

- This machine is packed in two separate cartons, the handle assembly in one, base in the other.
- Since the Galaxy is available in a variety of voltages and frequencies, it is important to ensure that the correct handle is installed with the correct base. The base part number and the handle part number it goes with are stated on the nameplate affixed to the base motor. The part number of the handle assembly is noted on the part number decal affixed to the handle.

Correct combinations are as follows:

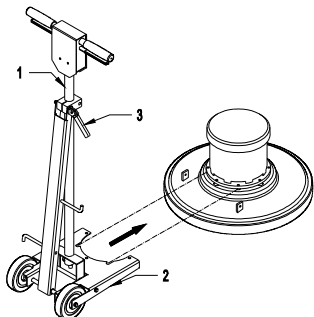
- 120 Volt Handle Assembly, part number 0394011 must be used with the following bases:

- 0304021 17" SS 120 VOLT 60HZ, 1 HP
- 0304031 20" SS 120 VOLT 60HZ, 1 HP
- 0304041 17" SS 120 VOLT 60HZ, 1.5 HP
- 0304051 20" SS 120 VOLT 60HZ, 1.5 HP
- 0304061 17" DS 120 VOLT 50/60HZ, 1.5 HP
- 0304081 20" DS 120 VOLT 50/60HZ, 1.5 HP

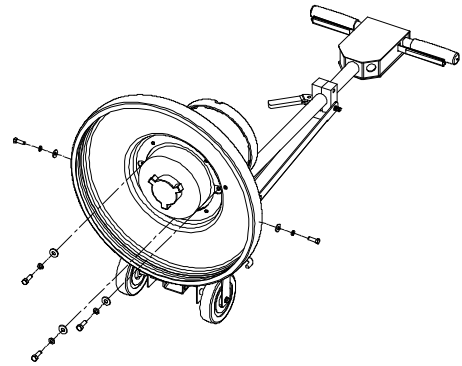
- 240 Volt Handle Assembly, part number 0394111 must be used with the following bases:

- 0304221 17" SS 240 VOLT 60HZ, 1 HP
- 0304131 20" SS 240 VOLT 60HZ, 1.5 HP
- 0304241 17" SS 240 VOLT 50HZ, 1 HP
- 0304151 20" SS 240 VOLT 50HZ, 1.5 HP
- 0304071 17" DS 240 VOLT 50/60HZ, 1.5 HP
- 0304091 20" DS 240 VOLT 50/60HZ, 1.5 HP

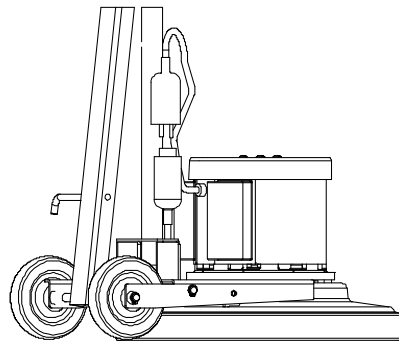
- To assemble the machine, simply remove the two sections from their cartons, and perform three (3) easy steps:



1. After removing the handle assembly from the carton, position the handle (1) at a 90° angle to the frame (2). Lock the handle in the upright position by pushing down on the locking lever (3). Slide the frame into the area between the motor and the skirt; the spacers will automatically align the holes for fastening.



2. Tip the machine back on to the handle. Insert the washers and bolts as shown. Leave the bolts finger tight until all have been started, then tighten with a 1/2" socket wrench.



A tank for dispensing solution for cleaning bare floors or for dispensing shampoo for carpet scrubbing is available (see the accessories page included in the Illustrated Parts List for details).

3. Plug the handle cord and the motor cord together, cover with plastic tube cover.

Assembly instructions for this accessory are included with the tank.

Once assembled attach the pad or brush, unwrap the cord from the handle, plug in the machine, you are now ready to operate the machine.

OPERATION

Preparing the Machine for Use

- With the handle locked in the upright position, tilt the machine back, exposing the underside of the machine.
- Attach the brush or pad driver to the lugs on the gearbox by rotating the pad driver or brush counterclockwise.
- To adjust the handle position, put the machine into an upright position, resting the pad or brush on the floor. Lift the handle lock to allow the handle to move freely. Adjust the handle to a comfortable operating position (just below belt height), and then push the locking lever down to lock the handle in this position. Should the lock lever not tighten securely to the handle tube, see "Lock Lever Adjustment" in the Maintenance section of this manual.
- Always check to see that the dead man or switch lever lockout located at the top and center of the handle is in the "**OFF**" (**up**) position and not stuck or malfunctioning in the "**ON**" (**down**) position before plugging in machine.
- Remove all of the cord from the handle and cord hook, plug the cord into the wall outlet.

Running the Machine

- To start the machine, grip the handles with both hands and raise the handle slightly to balance the machine. Then push down on the lock-out with the thumb of one hand, and with the other hand squeeze the switch lever.

CAUTION: The machine will start operating when the switch lever is squeezed.

- **Raise** the handle slightly to propel the machine to the right, **Lower** the handle slightly to propel the machine to the left.
- Begin operating the machine at a point closest to an electrical outlet, then working away from the outlet. This will prevent running over the electrical cord.

Galaxy DS (Dual Speed Machine)

- There is a switch at the rear of the motor that can be switched from low speed (180 RPM) to high speed (320 RPM).

Stopping the Machine

- **WITHOUT LETTING GO OF THE HANDLE**, release the switch levers to stop the machine.

CAUTION: This machine will continue to rotate for 1-2 seconds once the switch levers are released. When the machine comes to a complete stop, **UNPLUG THE MACHINE.**

- Release the handle lock, raise the handle to an upright position, and lock the handle.
- Tilt the machine back and remove the pad driver or brush by rotating it clockwise.
- **ALWAYS** remove the pad driver or brush when the machine is not in operation. The pad driver or brush should be hung on a peg, or laid flat on its back.

- **NEVER** store a pad driver or brush with the bristles down. This will ruin the balance of the pad driver or brush, which will cause the machine to wobble.

SURFACE CONSIDERATIONS

Brush or Pad Driver

Select the appropriate brush or pad driver and pad for the type of floor to be scrubbed or polished, and the operation being performed.

Carpet

When scrubbing carpeting with a brush, pad or bonnet mop, the carpet must stay wet enough to lubricate the brush, pad, or bonnet mop, otherwise overload of the motor will result.

Overload

Attention must be given to ensure the motor is not run in an overload condition.

- Listen to the motor when starting and during operation. Within 1-2 seconds from starting the sound of the motor will change as the motor switches from "start winding" to "run winding".
- During operation if the sound of the motor switches back to the "start winding" sound, this is an indication that the motor has been overloaded.

STOP IMMEDIATELY.

- Check the machine over to find the source of the overload and correct the problem.
- Overload may be caused by one or more of the following:
 - Too much weight. Do not add weight to this machine.
 - The floor is not wet enough.
 - Too much spray buff.
 - Incorrect brush or pad size is.
 - Pad is too worn and needs to be changed.
 - Too high or too low voltage (the voltage must be $\pm 10\%$ of the rating on the nameplate).
 - Use of too long, too small of gage, or too many extension cords.

MAINTENANCE

Routine maintenance is critical to ensure proper machine operation and cleaning performance. Perform all maintenance procedures as follows:

Always unplug machine before performing any maintenance. See front page for warnings.

Daily Maintenance

- Remove pad driver or brush from the machine. Rinse and allow to air dry. Failure to remove the pad driver or brush may cause damage to the pad or brush, causing the machine to wobble or vibrate excessively.
- If the machine is equipped with a handle mounted solution tank, empty the tank and rinse.
- Wipe off all of the plated and polished areas with a clean cloth.
- Check the cord for any breaks in the wire. Breaks would most likely occur near the plug and near the handle. Also check the ground pin for breakage. If any breaks are found, the cord should be replaced immediately.
- Inspect the handle tube and handle clamp mechanism for wear, damage, obstructions or build-up that may hinder easy movement of the handle. If the handle will not move with the handle lock in the up position, do not force movement. Contact an NSS authorized service center.
- Check the dead man switch and throttle levers for proper action.

Monthly Maintenance

- Lubricate the tube handle clamp area monthly with a thin film of grease to allow ease of adjustment.
- Check the wheels for wear or damage. Replace if needed.
- Apply a small amount of spray lubricant to the axle. This will allow the wheels to roll freely.
- Check for loose bolts that hold the motor and Gearbox to the base of the machine. Tighten if needed.
- Inspect the motor for accumulation of dirt in the vents of the motor. If vents are blocked the motor will over heat and fail. Clean out the dirt with a vacuum or with forced air.
- Check the Lock Lever to ensure it securely locks to the handle tube. If the clamp force is insufficient to keep the handle from moving, perform the **Lock Lever Adjustment** as follows:
- Tighten the nut opposite side of the lever.

Yearly Maintenance (Standard Speed Machine)

Disassemble the top of the motor to inspect the "stationary switch" for electrical pitting and carbon build-up. Clean or replace stationary switch as needed.

Yearly Maintenance (Dual Speed Machine)

Disassemble the top of the motor to inspect the carbon brushes for wear. Replace carbon brushes when they measure less than ½ " long.

TROUBLE SHOOTING

SYMPTOM	CAUSE	SOLUTION
Motor runs intermittently.	Loose wire.	Check all wire connections.
	Broken or damaged cord.	Replace cord.
	Bad handle switch.	Test continuity - replace.
	DS - Worn Carbon Brushes	Replace Carbon Brushes
Motor not running.	Loose wires.	Check all wire connections.
	Broken or damaged cord.	Replace cord.
	Bad handle switch.	Test continuity – replace.
	Shortened windings	Replace stator with frame.
	SS - Blown capacitor.	Replace capacitor.
	SS - Burned stationary switch.	Replace stationary switch.
	DS - Worn Carbon Brushes	Replace Carbon Brushes
	DS - Bad speed control	Test continuity - replace.
	DS - Bad rectifier	Test continuity - replace.
Motor slow speed only.	SS - Bad Capacitor.	Check capacitor.
	SS - Motor stuck in start winding.	Check stationary switch.
	DS - Loose wire.	Check all wire connections.
	DS - Bad speed switch	Test continuity - replace.
	DS - Bad speed control	Test continuity - replace.
Motor runs / pad does not turn.	Broken flex coupling in Gearbox.	Replace flex coupling in Gearbox.
Wall breaker blows.	Excessive load on circuit.	Check total load on circuit.
	Pad / brush over loaded.	Check / change procedures.
	Under sized extension cord.	Replace / remove extension cord.
	Improper use.	Consult distributor.
Machine wobbles or bounces	Warped / damaged pad driver / brush.	Replace pad driver / brush.
	Pad not centered.	Center pad.
Machine vibrates / buzzes	Worn motor bearings.	Replace motor bearings.
	Wheels loose on axle.	Shim wheels tight on axle.
Repair service for this machine must be performed by an NSS authorized service center. Repairs performed by an unauthorized company will void the machine warranty. If you require assistance finding an authorized service center, contact NSS Enterprises.		



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