

2-Speed Machine Owner's Manual

Operation • Care • Service

13" 2-SPEED 1.5 HP
15" 2-SPEED 1.5 HP
17" 2-SPEED 1.5 HP
20" 2-SPEED 1.5 HP

13" 2-SPEED XHD 1.5 HP
15" 2-SPEED XHD 1.5 HP
17" 2-SPEED XHD 1.5 HP
20" 2-SPEED XHD 1.5 HP



Commercial Use Only

TABLE OF CONTENTS

Machine Specifications	1
Service Information	2
Important Safety Instructions.....	2
Grounding Instructions	3
Operations / Accessories	3
Brush And Drive Block Installation.....	4
Adjustments.....	4
Controls.....	5
Guidelines For Operation.....	5
Cord Storage	5
Clean Up And Storage	5
Floor Machine Assemblies.....	6
Floor Machine Parts List.....	7-8
Optional Accessories.....	9
Features	9
Limited Warranty	Back Cover

Machine Specifications

Model13", 15", 17", 20" 175/300 RPM
1.5 HP 2-Speed
Voltage115 V/60Hz
Power Cord50 Ft. (15.2m) 14-3 STO Fixed
Motor.....1 1/2 HP / DC Rectified
RPM(Brush).....175/300
Gear BoxPlanetary 3-Idler
Steel Cut Helical Gears
Machine Weight ...13" 92 lbs (41.7 kg)
15" 94 lbs (42.6 kg)
17" 96 lbs (43.5 kg)
20" 102 lbs (46.3 kg)

Model13", 15", 17", 20" 175 RPM
1.5 HP XHD
Voltage115V/60Hz
Power cord50 Ft. (15.2m) 14-3 STO Fixed
Motor.....1.5 HP / 66 Frame
RPM (Brush).....160
Gear BoxPlanetary 3-Idler
Steel Cut Helical Gears
Machine Weight ...13" 100 lbs (45.4 kg)
15" 103 lbs (46.7 kg)
17" 106 lbs (48.1 kg)
20" 109 lbs (49.4 kg)

SERVICE INFORMATION

To obtain consistent performance over the life of your 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.

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.	
SERIAL #	MODEL #
Retain this owners manual for future reference.	

IMPORTANT SAFETY INSTRUCTION

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

READ ALL INSTRUCTIONS BEFORE USING THIS FLOOR MACHINE.



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

- 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 around sharp edges or corners. Keep the cord away from the heated surfaces.
- Connect to properly grounded (3-wire) outlet only. Refer to Grounding Instructions, Page 4.
- Do not use extension cords or outlets with inadequate current carrying capacity.
- Turn off all controls before unplugging.
- Do not unplug by pulling on the cord. To unplug, grasp the plug and pull.
- 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, Page 5.
- Use extra care when working on or 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.
- Your floor machine is equipped with a safety switch lock and power switch triggers designed for your safety. Do not attempt to by pass 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 plugged in. Turn off the switch and unplug the electrical cord when not in use and before servicing or changing the brushes or pads.

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 that has 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.

FOR FLOOR FINISHING MACHINES RATED LESS THAN 150 VOLTS



WARNING: DO NOT USE GROUNDING ADAPTERS ON 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.

Improper connection of an equipment grounding conductor can result in 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 appliance. If it will not fit the outlet, have a proper outlet installed by a qualified electrician. This appliance is for use on a nominal 120 volt circuit and has a grounding plug that looks like the plug illustrated in Figure 1. A temporary adapter which looks like the adapter illustrated in Figure 2 may be used to connect this plug to a two pole receptacle, as shown, if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet (Figure 1) can be installed by a qualified electrician. The green colored rigid ear, lug, or the like extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box cover. Whenever the adapter is used, it must be held in place by metal screw.

FOR FLOOR FINISHING MACHINES RATED 150-220 VOLTS:

If the machine is provided with an attachment plug cap as shown in Figure 3, it is intended for use on a 240 volt (nominal) circuit. No adapter is available for this cap.

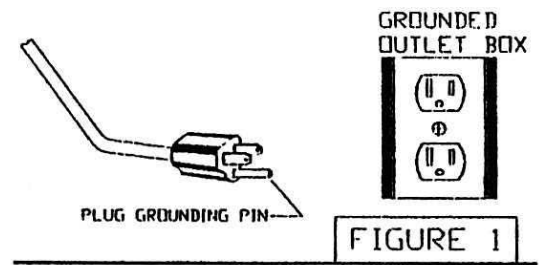


FIGURE 1

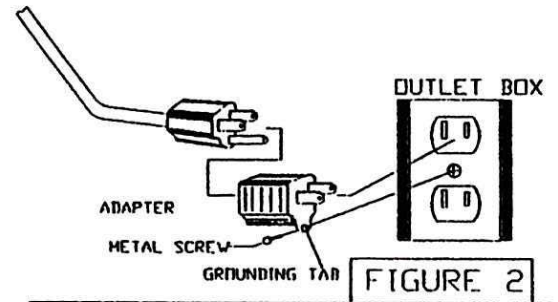


FIGURE 2

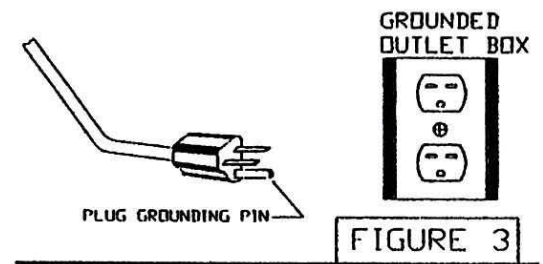


FIGURE 3

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.

Your 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. (Accessories are available from the dealer from whom the floor machine was purchased. See Optional Accessories, Page 10)

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

Machine Size	Pad Driver	Brush Diameter	Block Diameter
13"	12"	13"	11"
15"	14"	15"	13"
17"	16"	17"	15"
20"	19"	20"	18"

Clutch plate A0019 is common on all models.

BRUSH AND PAD DRIVER INSTALLATION

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

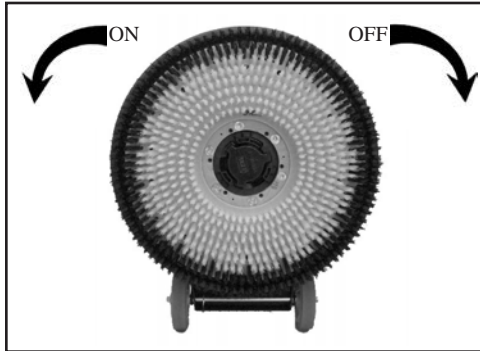


Figure 4

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 (Figure 4). The brush and pad driver both attach in the same manner; align the cut-outs on the inner ring of the brush or pad driver with the tables on the inside of the ring of the drive hub (Figure 5). 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, and then lift it off. **NOTE:** Always remove the brush or pad driver when the machine is not in use.

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

ADJUSTMENTS HANDLE ADJUSTMENT

The handle can be adjusted to any desired work position by simply pushing up on the handle lock (Figure 5). Move the handle to the desired position, then firmly push down on the handle lock which will lock the handle in position.

HANDLE CAM LOCK ADJUSTMENT

With the handle cam lock in the “up” position (unlocked), tighten the adjusting nuts until there is a slight drag when the handle is raised or lowered. The tube should be locked securely when the handle lock is pressed downward (Figure 6).

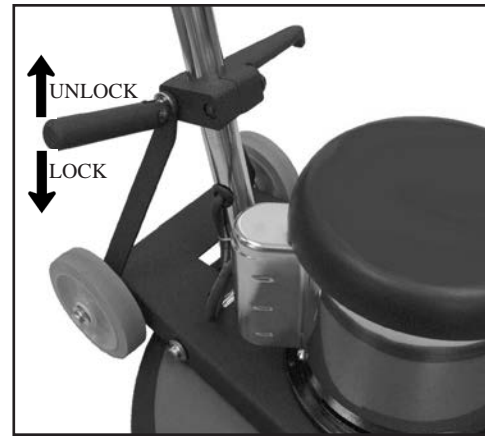


Figure 5

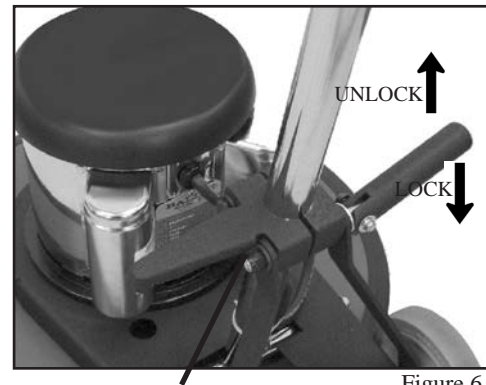


Figure 6

ADJUSTING NUT

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 operating handle must be lowered to the operating 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 one thumb. Then, while holding the safety switch lock in the disengaged position, squeeze the power triggers toward the handle grips and return your thumb to the handle grip. (See figure 7)

To stop the machine, simply release the triggers. The safety switch lock will automatically return to the engaged position. (See figure 7)

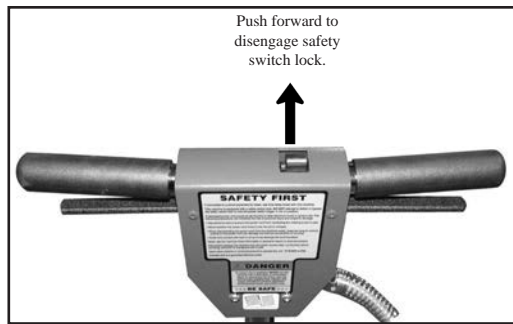


Figure 7

The model 175/300 RPM 2-Speed 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.

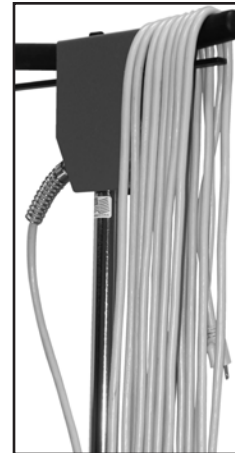
GUIDELINES FOR OPERATION

- 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 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 operating handle to a comfortable height at which the brush or pad surface is balanced before starting the machine. (See Handle Adjustment Page 4)
- 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 OPERATING 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 to the left, slowly apply slight downward pressure on the handle.
- To move the machine forward or backward, keep the brush or pad flat on the floor and push or pull the machine in the desired 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.

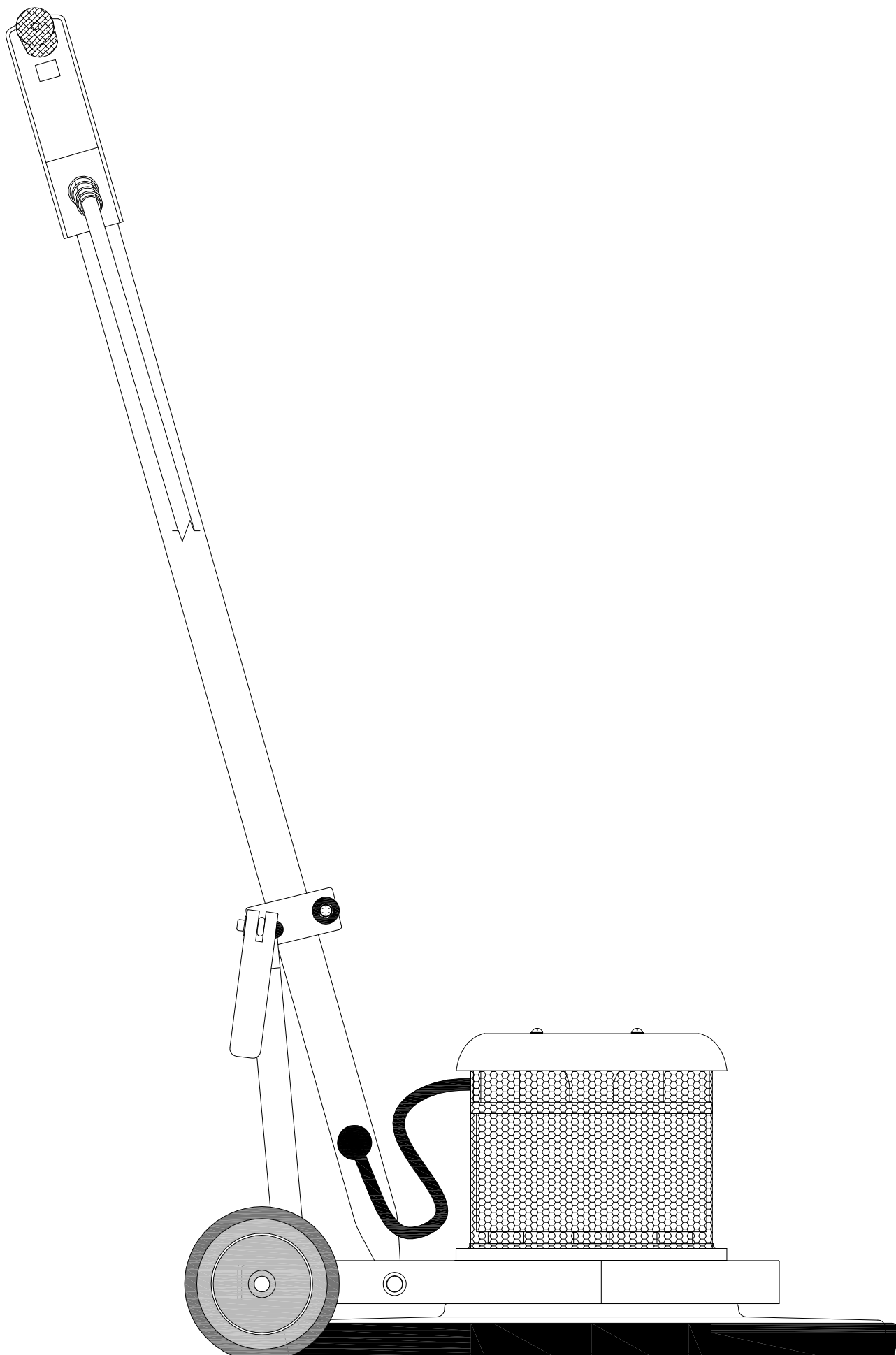
CORD STORAGE

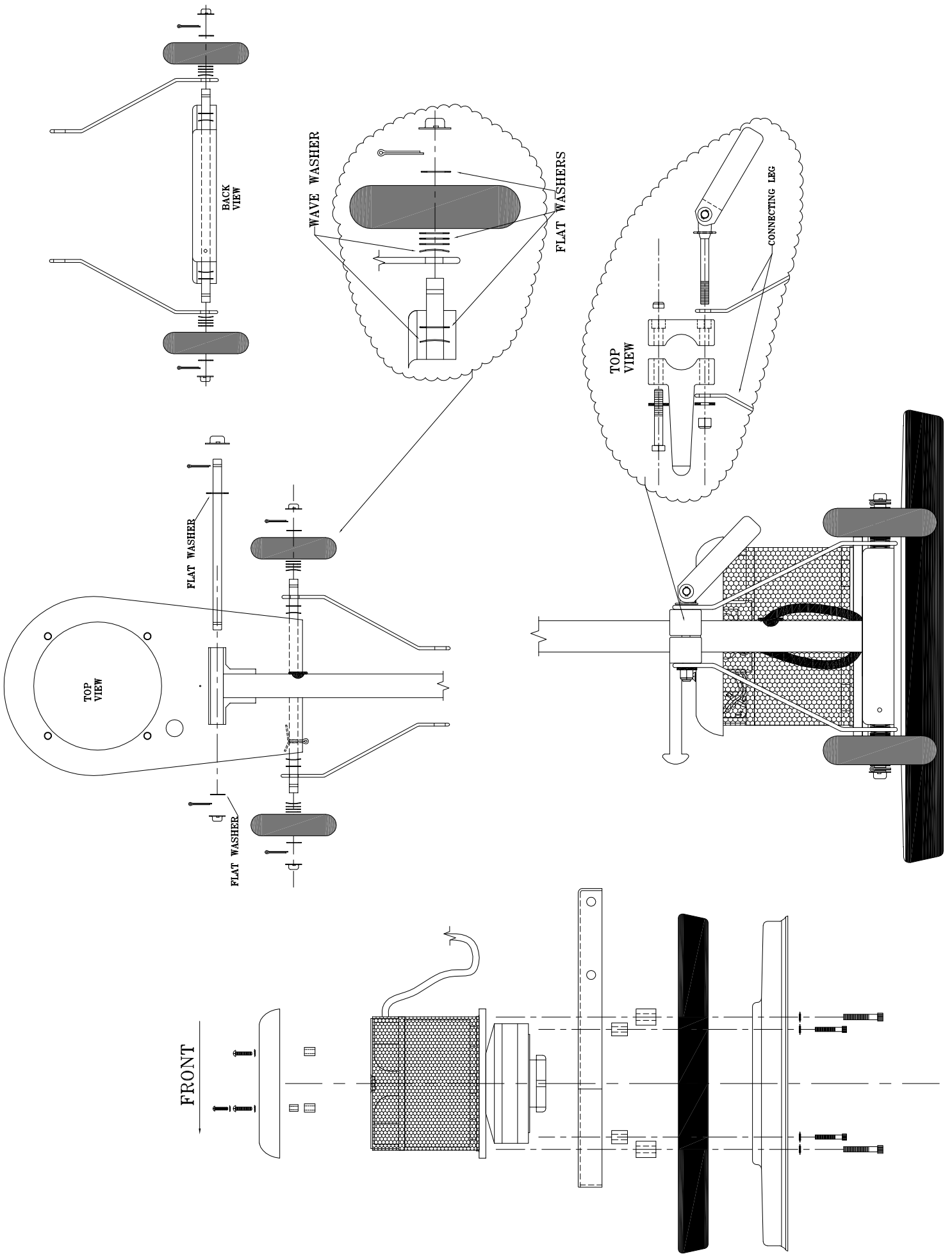
When not in use, loosely wind the power cord around the cord storage hook on the handle shaft and both of the handle grips, as shown:

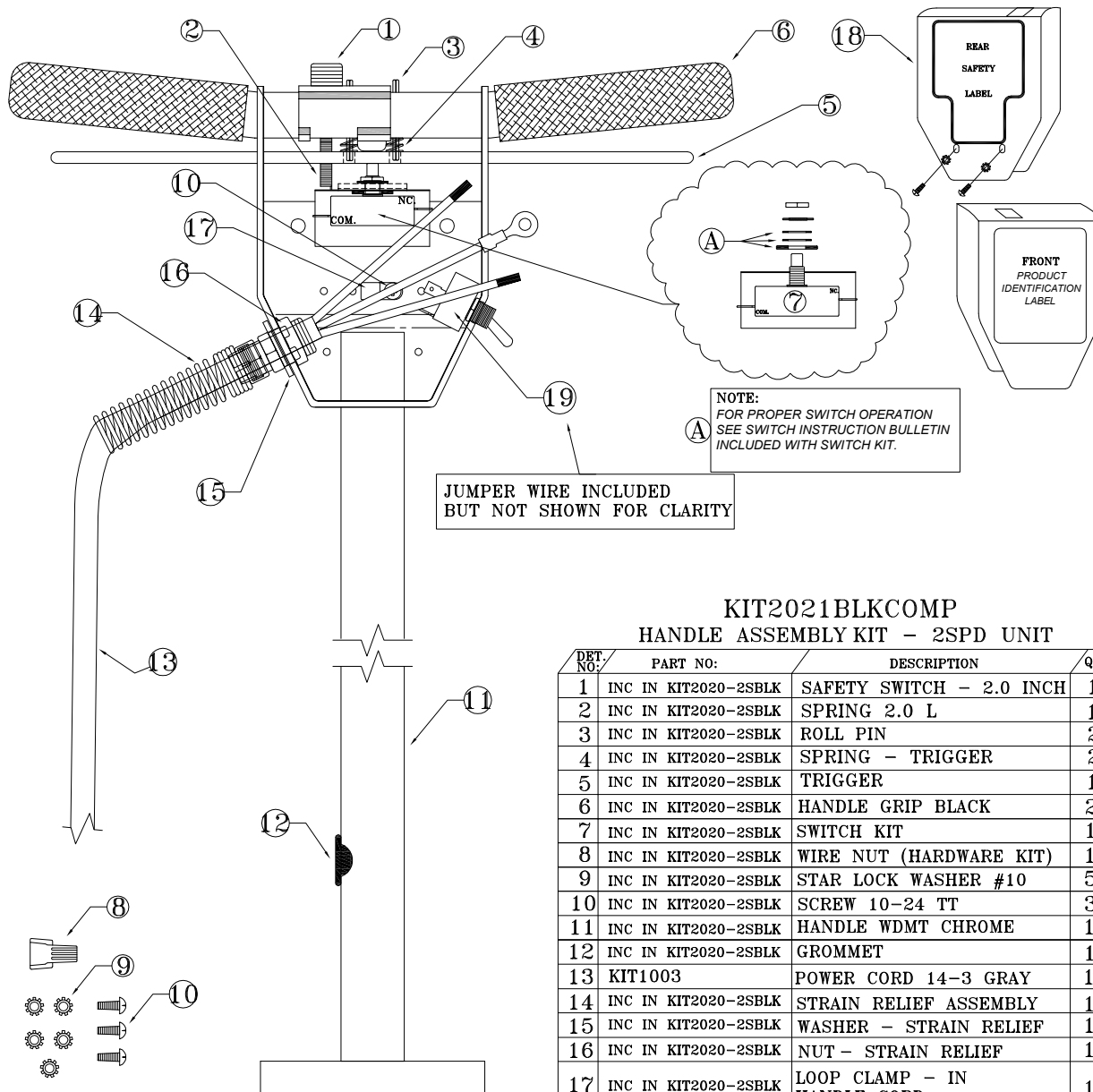


CLEANUP AND STORAGE

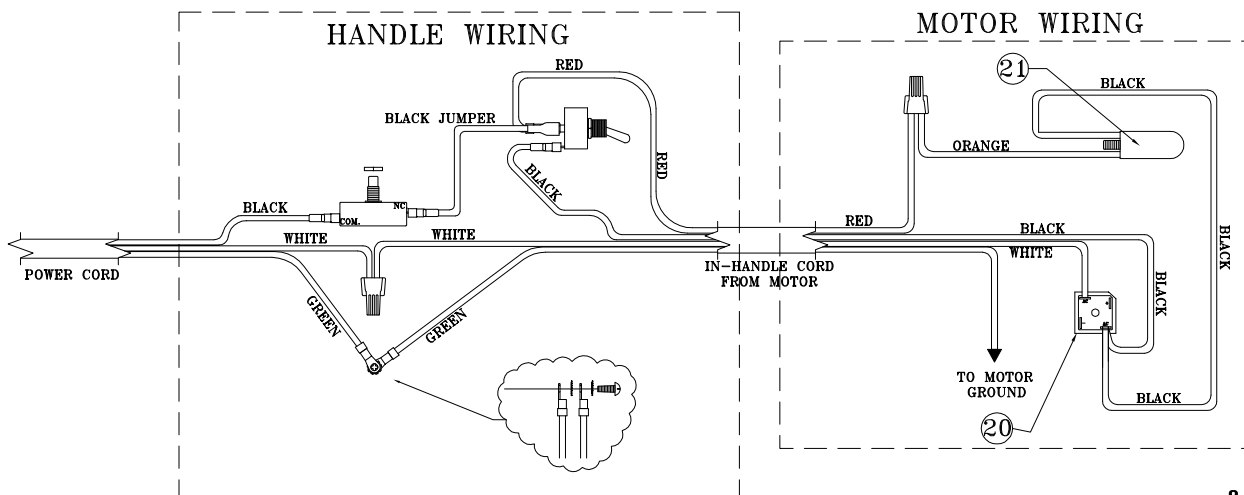
After being used, your floor machine can be wiped clean with a soft, damp cloth and should be stored in a clean, dry place.

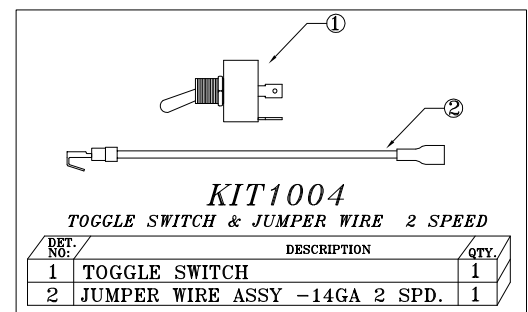
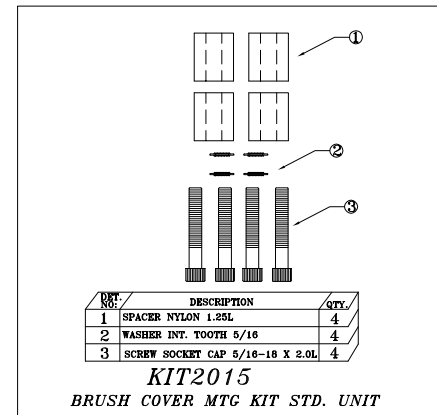
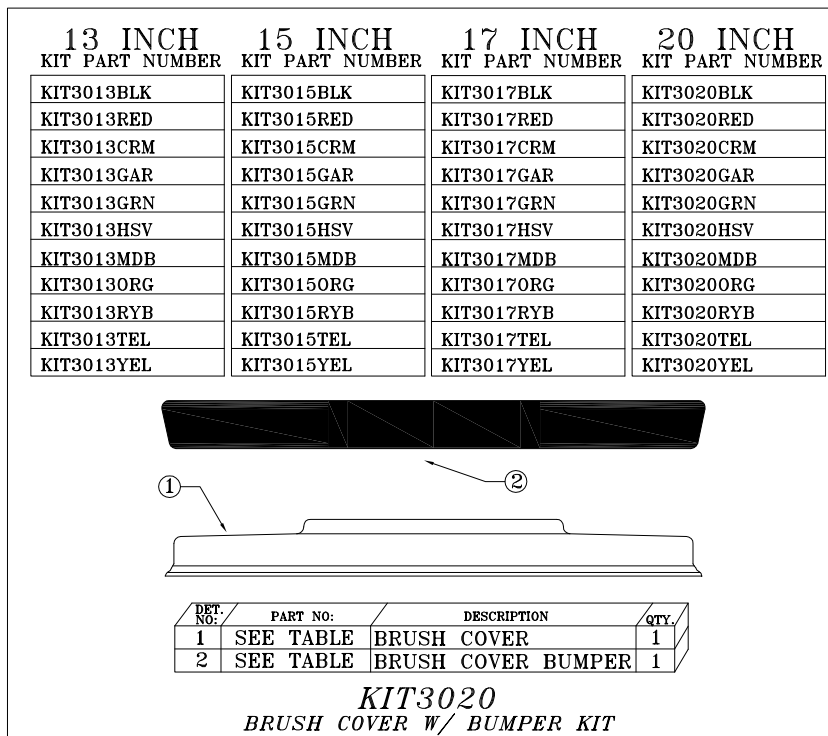
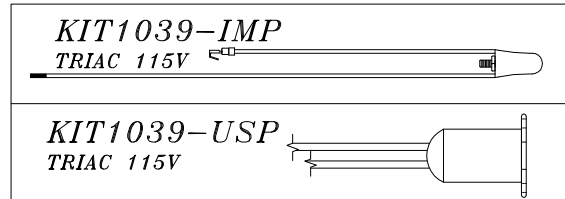
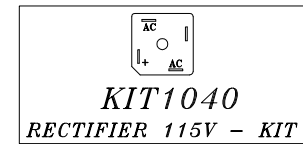
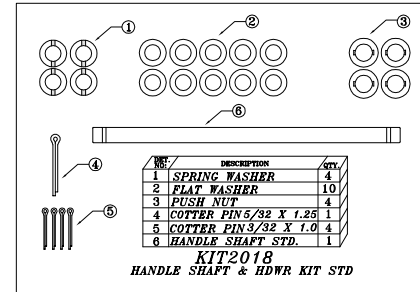
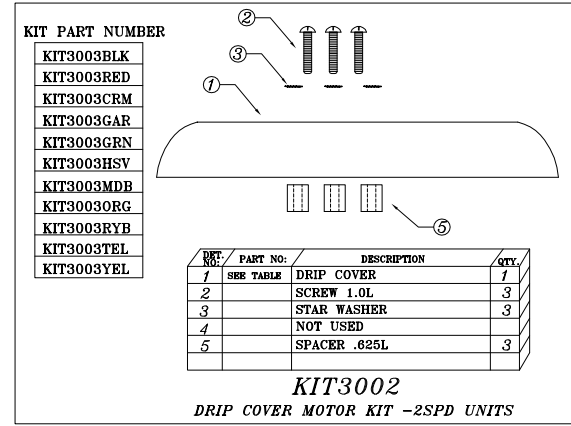
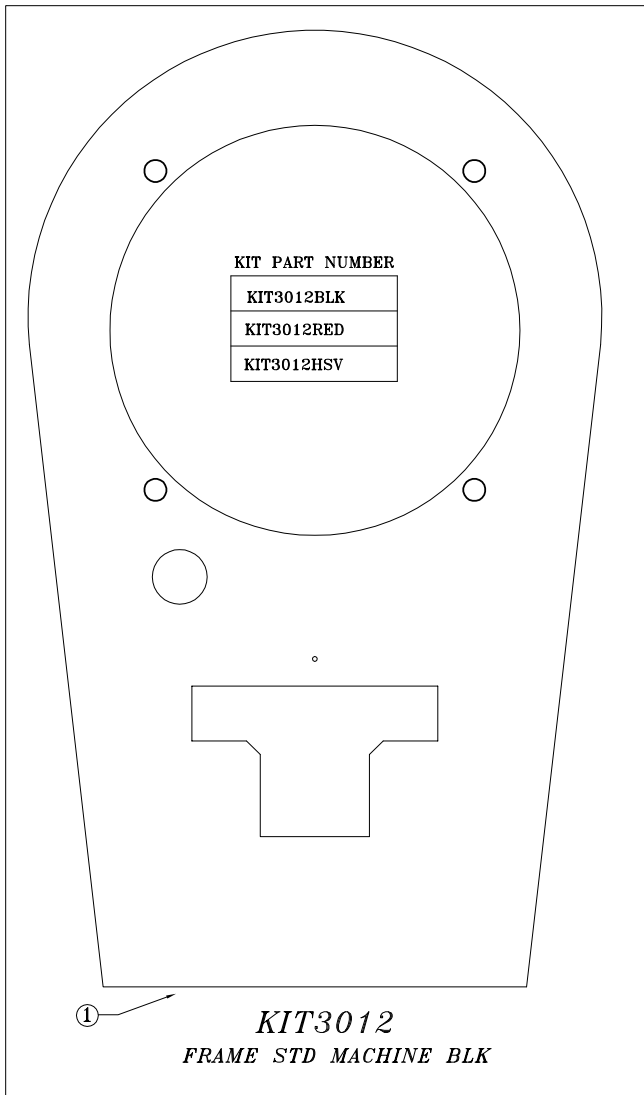






**NOTE: KIT1003 & KIT3008RED
ARE NOT INCLUDED IN KIT2020-2SBLK**



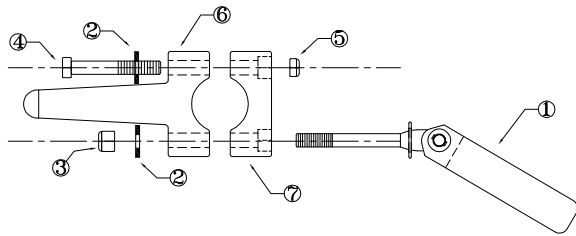


KIT PART NUMBER

KIT3010BLK

KIT3010RED

KIT3010HSV



REF. NO.	DESCRIPTION	QTY.
1	SEE TABLE HANDLE LOCK CAM	1
2	WASHER FLAT BLK OXIDE 3/8	1
3	WASHER FLAT BLK OXIDE 3/8	1
4	NUT HEX NYLCK 3/8 X 16	1
5	BOLT 3/8-16X2-1/2 GR8 BL	1
6	NUT LOCK THIN FLEX .375-16	1
7	SEE TABLE CORD HOOK HANDLE	1
8	SEE TABLE CORD HOOK CAP/HDL LOCK CLAMP	1

KIT3010

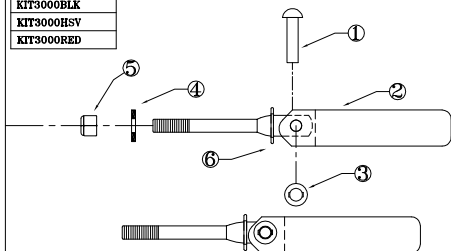
HANDLE LOCK CLAMP ASSY COMP.

KIT PART NUMBER

KIT3000BLK

KIT3000HSV

KIT3000RED



REF. PART NO.	DESCRIPTION	QTY.
1	RIVET SOLID ZINC 5/16 X 1-1/4	1
2	SEE TABLE HANDLE LOCK CAM	1
3	NUT PUSH 1/2 BRIGHT NICKEL	1
4	WASHER FLAT BLK OXIDE 3/8	1
5	NUT HEX NYLCK 3/8 X 16	1
6	WASHER HANDWED SLOTTED FLAT	1

KIT3000

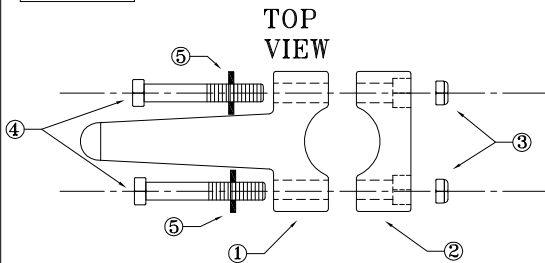
CAM LOCK ASSY

KIT PART NUMBER

KIT3009BLK

KIT3009RED

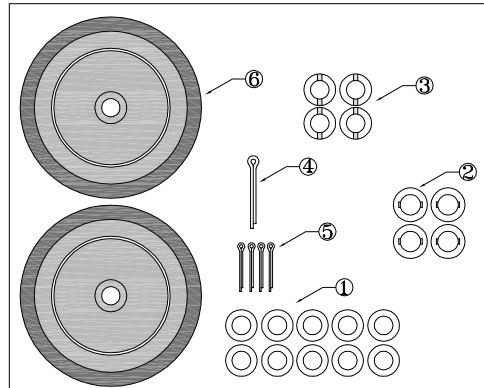
KIT3009HSV



REF. NO.	DESCRIPTION	QTY.
1	SEE TABLE CORD HOOK	1
2	SEE TABLE CORD HOOK CAP	1
3	NUT NYLOC .375-16 ZN	2
4	BOLT .375-16 X2.0L GR8 BLK	2
5	WASHER .375 FLAT BLK	2

KIT3009

CORD HOOK BODY AND CAP ASSY

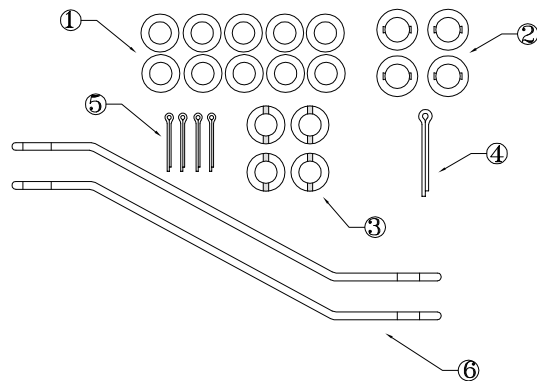


ITEMS 1 THRU 5 INC IN HDWR KIT2010

REF. DESCRIPTION	QTY.
1 WASHER FLAT ZN	10
2 NUT PUSH 1/2 BRIGHT NICKEL	4
3 WASHER SPRING	4
4 COTTER PIN 5/32 X 1.5 L	1
5 COTTER PIN 3/32 X 1.0 L	4
6 WHEEL 5 INCH GRAY W/BB	2

KIT2009

WHEELS & HDWR KIT LESS AXLE STD. UNIT

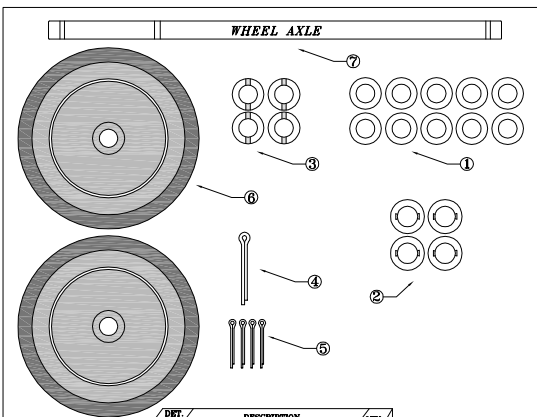


ITEMS 1 THRU 5 INC IN HDWR KIT2010

REF. DESCRIPTION	QTY.
1 WASHER FLAT ZN	10
2 NUT PUSH 1/2 BRIGHT NICKEL	4
3 WASHER SPRING	4
4 COTTER PIN 5/32 X 1.5 L	1
5 COTTER PIN 3/32 X 1.0 L	4
6 CONNECTING LEG - BLK	2

KIT3006BLK

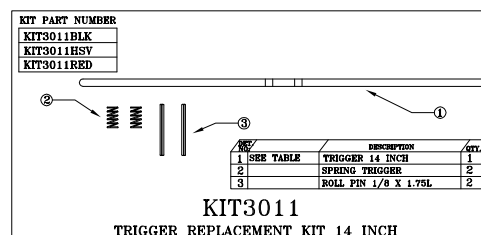
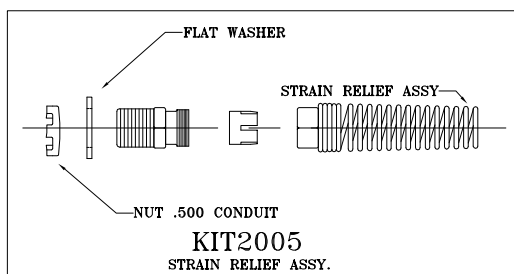
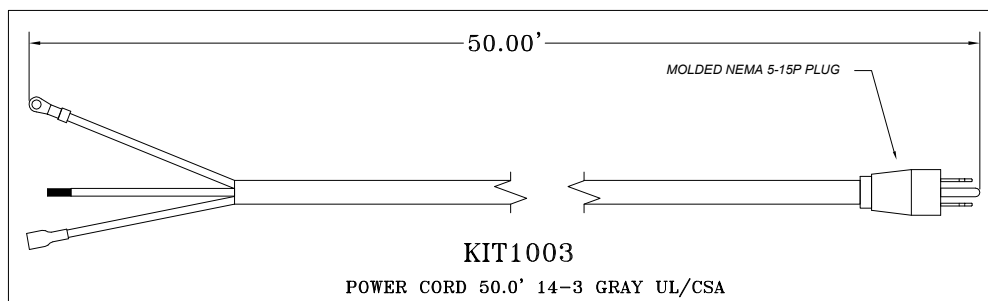
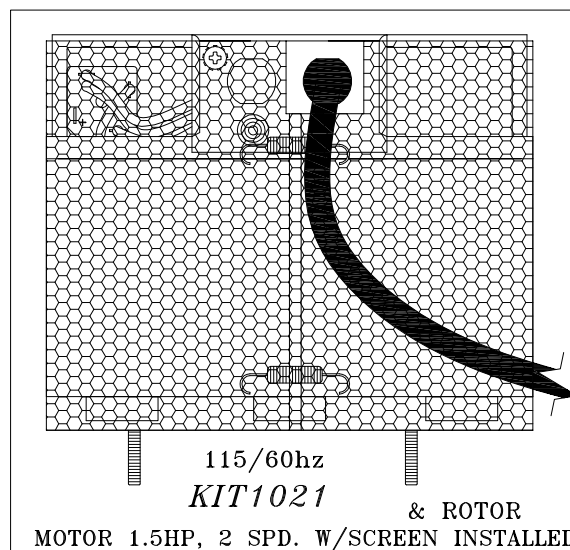
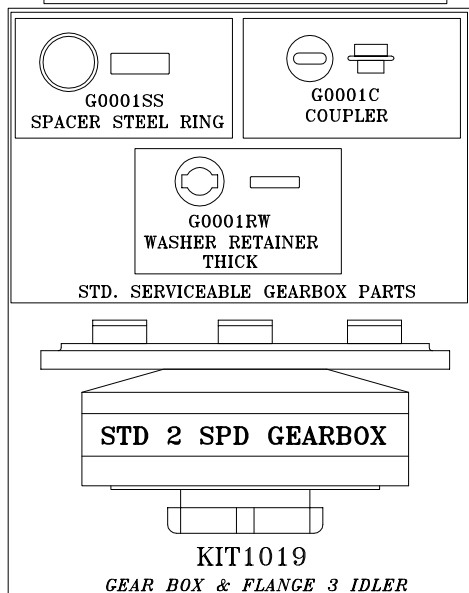
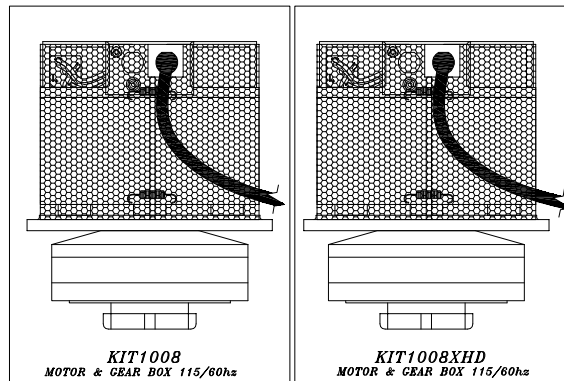
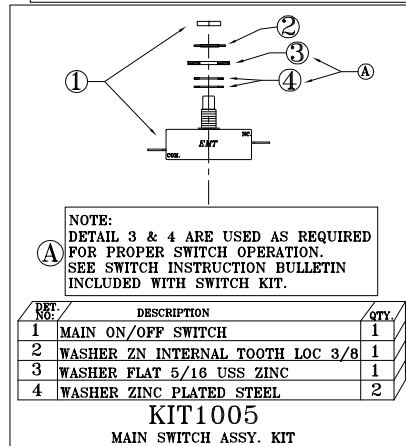
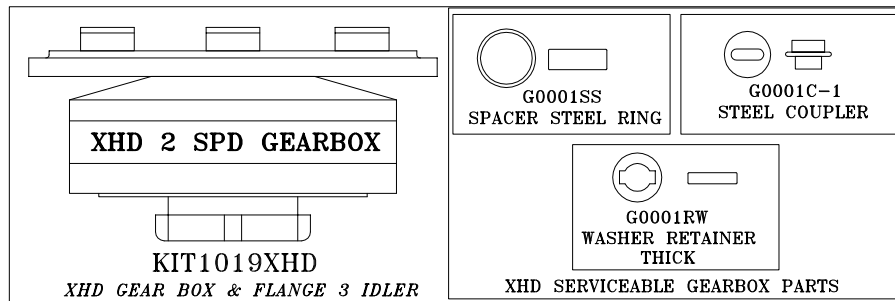
CONNECTING LEG KIT- STD UNIT



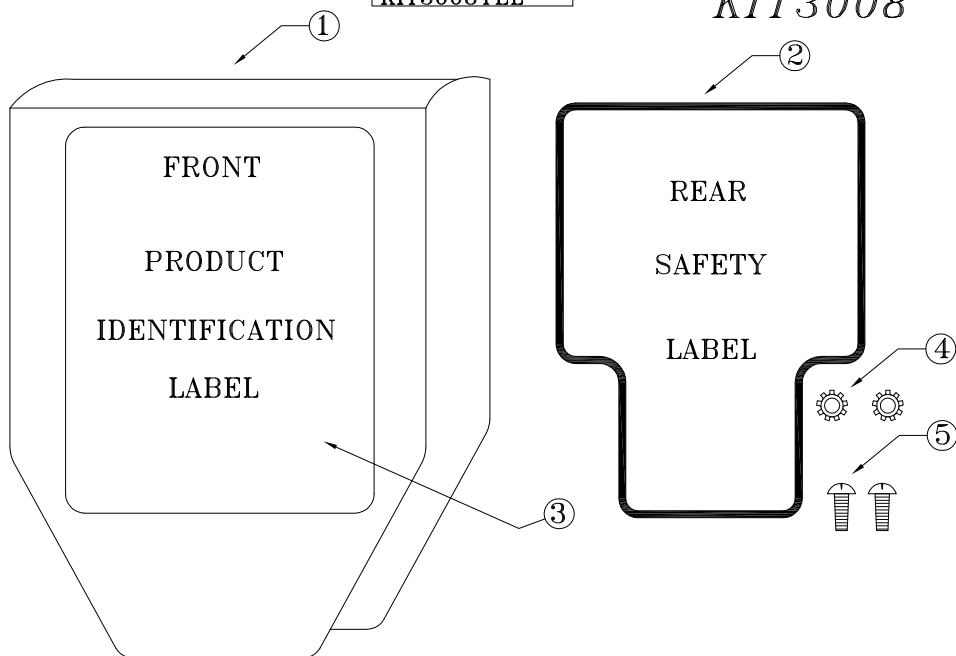
REF. DESCRIPTION	QTY.
1 WASHER FLAT ZN	10
2 NUT PUSH 1/2 BRIGHT NICKEL	4
3 WASHER SPRING	4
4 COTTER PIN 5/32 X 1.25 L	1
5 COTTER PIN 3/32 X 1.0 L	4
6 WHEEL 5 INCH GRAY W/BB	2
7 WHEEL AXLE	1

KIT2007

WHEELS, AXLE & HDWR KIT STD UNIT

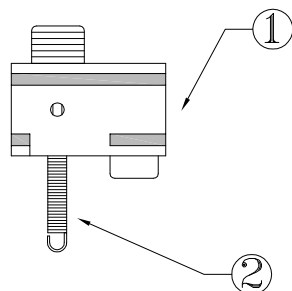


KIT PART NUMBER
KIT3008RED
KIT3008BLK
KIT3008CRM
KIT3008GAR
KIT3008GRN
KIT3008HSV
KIT3008MDB
KIT3008ORG
KIT3008RYB
KIT3008TEL
KIT3008YEL



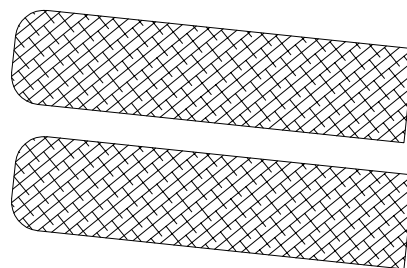
DET. NO:	PART NO:	DESCRIPTION	QTY.
1	SEE TABLE	SWITCH BOX COVER	1
2		LABEL REAR SAFETY WARNING	1
3		LABEL FRONT HAWK	1
4		WASHER #10 EXT TOOTH LCK	2
5		SCREW 10-24 X .50L TT	2

KIT3008
SWITCH BOX KIT - STD



DET. NO:	DESCRIPTION	QTY.
1	SAFETY SWITCH - 2.0 INCH	1
2	SPRING 2LNG X .025 OD X .026	1

KIT2006
SAFETY SWITCH KIT



DET. NO:	DESCRIPTION	QTY.
1	HANDLE GRIP - BLACK	2

KIT2011BLK
HANDLE GRIP KIT - BLACK

OPTIONAL ACCESSORIES		
Model 17"	Model 20"	Option Description
A0002	A0003	Polypropylene Brush
A0004	A0005	Polish Brush
A0006	A0007	Nylon Brush
A0008	A0009	Grit Brush
A0010	A0011	Pad Driver
A0001-NAT4	A0001-NAT	Solution Tank Kit
A0019	A0019	Clutch Plate (Plastic)
A0019-1M	A0019-1M	Clutch Plate (Aluminium)

FEATURES

- Dual trigger negative pressure switch allows operator to run unit with either hand
- Safety switch lock mechanism prevents accidental start.
- Steel transmission gears give outstanding wear and durability
- Planetary gearbox means strength
- Premium 66 frame motors provide better cooling and more torque with longer motor life
- One piece welded heavy gauge handle gives superior handling stability
- Ergonomically designed foot operated positive lock handle adjustment eliminates bending
- High strength steel frames withstand heavy duty wear situations

LIMITED WARRANTY

Your 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 equipment with information concerning the duration, extent, availability, and applicability of this Limited Warranty, the procedure to be taken to obtain its performance, and other information concerning the **Limited Warranty policy**.

The 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 attributable to the following:

- (1) Improper, unreasonable or negligent use or abuse of the equipment
- (2) 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 EQUIPMENT NOT COVERED BY THE LIMITED WARRANTY

Certain parts of equipment require replacement in the ordinary use due to normal wear by reason of their characteristics. Normal wear items such as cords, switches, bumpers, 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 excepted 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, at its sole option, my 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 distributor's service department in the United States;
- (3) Any authorized service station in the United States.

If you are unable to locate any of the foregoing, you may write or otherwise communicate with your distributor before repair service is performed by anyone else. In such event, your distributor will provide either the location or a closely available distributor service department, or an 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 all shipping and delivery charges pre-paid. In following the procedures set forth, PLEASE MAKE CERTAIN to state the model, type and serial number as shown on the data plate of the equipment.

REPLACEMENT

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

NO REFUND OF PURCHASE PRICE

Your distributor will not, as a matter of it's Limited Warranty policy, refund the customer's purchase price.

LIMITED WARRANTY REGISTRATION CARD FOR YOUR EQUIPMENT AND REQUEST FOR INFORMATION

Your 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 equipment or this Limited Warranty may likewise be secured from the factory. This Limited Warranty will give you specific legal rights, and you may also have other rights which vary from state to state.