

# Front Runner Floor Machines

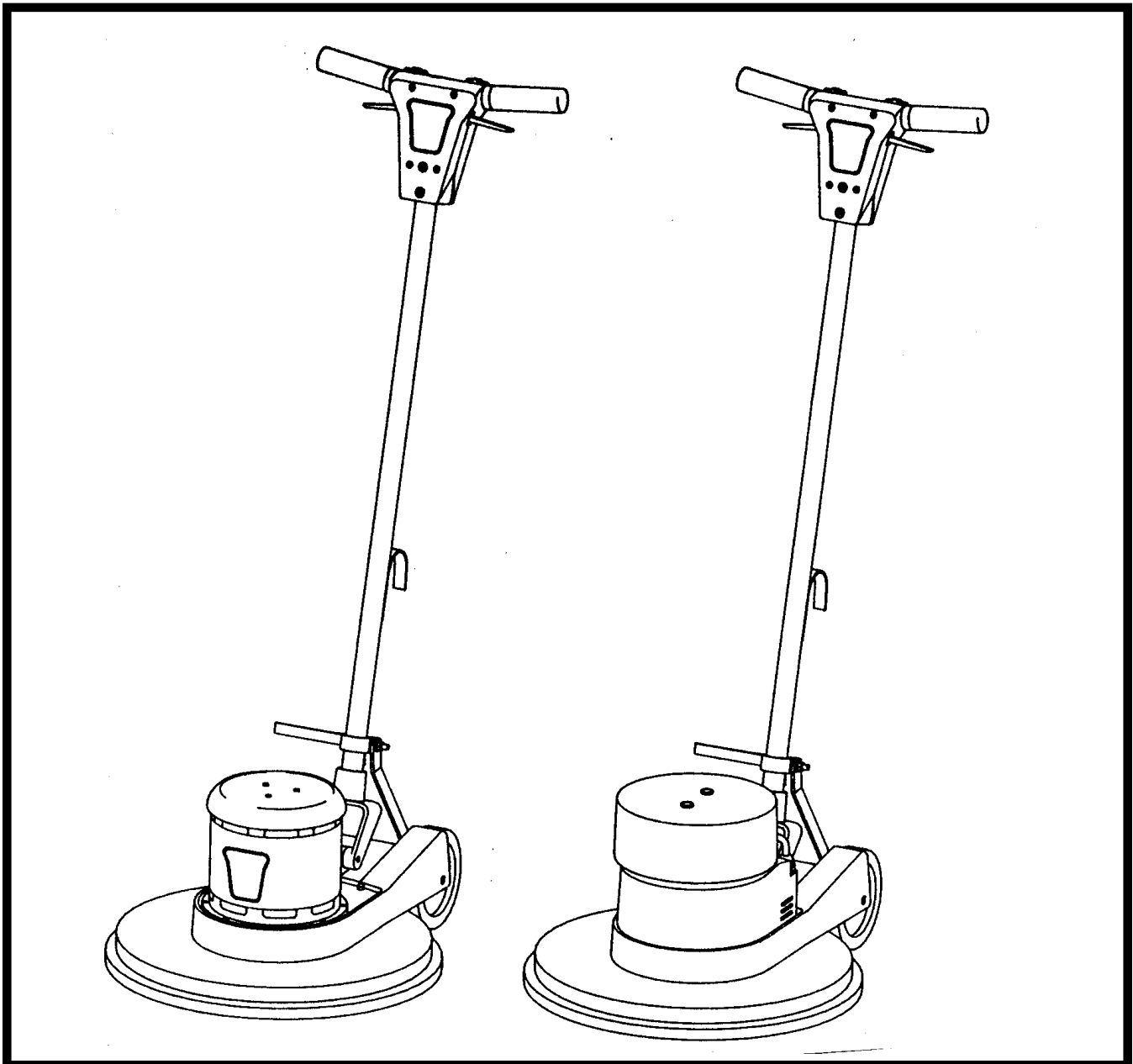
Model: M17120-00,  
01, 02, 03  
M17240-01, 02, 03  
M20120-01, 02, 03  
M20240-01, 02, 03  
4XK49 (M20120-02)

OPERATION

SERVICE

PARTS

CARE



Revised 5/02

**Minuteman<sup>®</sup>**

# **FOR COMMERCIAL USE ONLY**

## **IMPORTANT SAFETY INSTRUCTIONS**

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

### **READ ALL INSTRUCTIONS BEFORE USING**

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

- Do not leave appliance when plugged in. Unplug from outlet when not in use and before servicing.

#### **WARNING**

To reduce the risk of electrical shock - Do not expose to rain. Store indoors.

- Never allow children or untrained adults to operate this equipment.
- Keep the area of operation clear of all persons, particularly small children, and pets. Keep bystanders at least 25 feet away from the area of operation.
- Use only as described in this manual. Use only manufacturer's recommended attachments.
- Do not use with damaged cord or plug. If appliance is not working as it should, has been dropped, damaged, left outdoors, or dropped into water, return it to a service center.
- 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.
- Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
- Do not handle plug or appliance with wet hands.
- Do not put any object into openings. Do not use with any opening blocked; keep free of dust, lint, hair, and anything that may reduce air flow.
- Keep hair, loose clothing, fingers, and all parts of body away from openings and moving parts.
- Do not pick up anything that is burning or smoking, such as cigarettes, matches, or hot ashes.
- Do not use without dust bag and/or filters in place.
- Turn off all controls before unplugging.
- Use extra care when cleaning on stairs.
- Do not use to pick up flammable or combustible liquids such as gasoline or use in areas where they may be present.
- Connect to a properly grounded outlet only. See grounding instructions.

### **SAVE THESE INSTRUCTIONS**

# INSPECTION

Carefully unpack and inspect your machine for shipping damage. Each unit is tested and thoroughly inspected before shipment, and any damage is the responsibility of the delivery carrier who should be notified immediately.

# WARNING

Read Instruction Manual before operating this piece of equipment.

- To reduce the risk of fire use only commercially available floor cleaners and waxes intended for machine application.
- Risk of explosion - floor sanding can result in an explosive mixture of fine dust and air. Use floor sanding machine in a well-ventilated area free from any flame or match.
- Electrical motors and components can cause an explosion when operated near volatile materials and vapors. Do not use this machine near flammable materials such a solvents, thinners, fuels, grain dust, etc.

# ELECTRICAL - 115 Volt

Model M17120-00, 01 02 M20120-01, 02, 03

This machine is designed to operate on a standard 15 amp. 120 volt, 60 hz, AC circuit. Voltages below 105 volt AC or above 125 volts AC could cause serious damage to the motor.

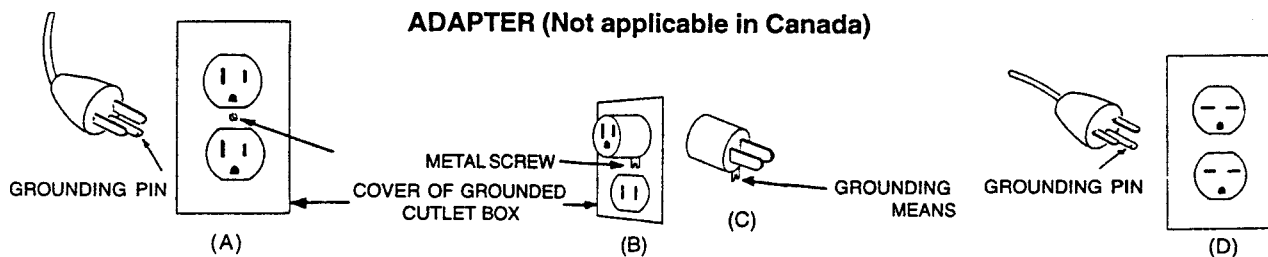
# ELECTRICAL - 240 Volt

Model M17240-01, 02, 03 M20240-01, 02, 03

This machine is designed to operate on a standard 16 amp. type L fused 230 volt, 50 hz, AC circuit. Voltages below 200 volt AC or above 250 volts AC could cause serious damage to the motor.

# GROUNDING INSTRUCTIONS

- This floor finishing machine should be grounded while in use to protect the operator from electric shock. The machine is equipped with a three-conductor cord and a three-prong grounding type 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 blade.
- Floor Finishing Machines Rated Less Than 150 Volts - If the machine is provided with an attachment plug as shown in Sketch A it is intended for use on a 120-volt (nominal) circuit.
- If a properly grounded receptacle as shown in Sketch A is not available, an adapter as shown in Sketch C is available and should be installed as shown in Sketch B if the outlet box that houses the receptacle is grounded. Be sure to fasten the grounding tab with the faceplate screw.
- Floor Finishing Machines Rated More Than 150 Volts - If the machine is provided with an attachment plug as shown in Sketch D, it is intended for use on a nominal 240 volt circuit. No adapter is available for this plug.



# POUR USAGE COMMERCIAL SEULEMENT

## MODE D'EMPLOI SECURITAIRE

Lorsque l'on utilise un appareil électrique, des précautions de base doivent toujours être suivies telles que:

### BIEN LIRE LE MODES D'EMPLOI AVANT USAGE

**AVERTISSEMENT** - Pour réduire les risques de feu, choc électrique ou blessure:

Ne pas quitter l'appareil lorsque la prise de courant est branchée. Débrancher de la sortie électrique lorsque la machine n'est pas en usage ou pour en faire le service.

**AVERTISSEMENT** - Pour réduire le risque de choc électrique - Ne pas exposer à la pluie - Entreposer à l'intérieur.

- Ne pas permettre l'usage comme jouet. Etre très prudent lorsque l'appareil est utilisé en présence d'enfants.
- Utiliser tel que prescrit dans le livre d'opération et seulement avec les attachements recommandés par le manufacturier.
- Ne pas s'en servir avec corde ou prise de courant endommagée. Si l'appareil ne fonctionne pas ou a été échappé, endommagé, entreposé à l'extérieur ou déposé dans l'eau, l'appareil devrait être envoyé à un département de service pour inspection.
- Ne pas tirer ou porter par le câble ou se servir du câble comme poignée. Ne pas fermer de portes sur le câble ou tirer le câble près d'objets pointus. Ne pas conduire l'appareil en écrasant le câble et soyez certain de protéger le cable entre toutes surfaces de chauffage.
- Ne pas débrancher en se servant du câble. Pour débrancher tirer sur la prise et non sur le câble.
- Ne pas manipuler la prise ou l'appareil avec les mains mouillées.
- Ne placer aucun objet dans la sortie et ne pas s'en servir si la sortie est obstruée. Eliminer toute poussière, maillon, cheveux ou quoique ce soit qui pourrait réduire le mouvement d'air.
- N'exposer aucun cheveux, vêtement, doigts ou autres aux ouvertures de l'appareil.
- Ne rien ramasser de ce qui brûle ou de fumée tels que cigarettes, allumettes ou cendres en feu.
- Ne pas employer sans filtre de poussière ou autre en position.
- Fermer tous les contrôles après utilisation.
- Soyez très prudent lors du nettoyage d'escaliers.
- Ne pas ramasser de liquide inflammable ou combustible tel que gazoline et ne pas utiliser dans les endroits ou ces derniers pourraient être présent.
- Brancher dans une prise avec une prise de terre seulement. Voir références pour prise de terre.

**CONSERVEZ CES RECOMMANDATIONS  
DE MODE D'EMPLOI**

# USER MAINTENANCE INSTRUCTIONS

A qualified electrician should perform all service and repair. No user serviceable components are employed in this equipment. No lubrication of the motor is required.

## CORD STORAGE

While not in use, storage can be accomplished by winding cord around handle assy. Cord should be completely unwound during operation.

- Do not use with damaged cord or plug. If appliance is not working as it should, has been dropped, damaged, left outdoors, or dropped into water, return to service center.
- Do not pull or carry by cord, use cord as 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.
- Do not unplug by pulling cord. To unplug, grasp the plug, not the cord.
- Do not handle plug or appliance with wet hands.
- Always unplug the machine when removing brush. This equipment should be stored indoors and not exposed to rain.

## PREVENTATIVE MAINTENANCE - 2-Speed Models Only

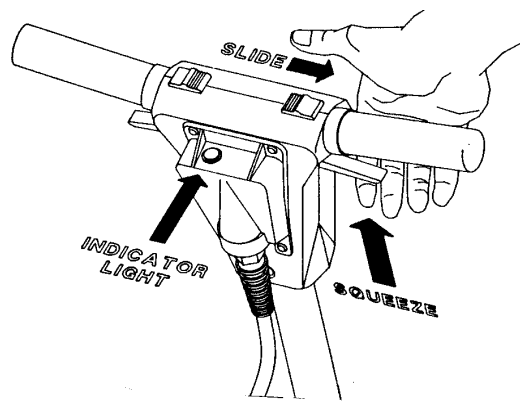
This machine employs a motor carbon brush wear indicator light located on the rear of the motor cover. This will illuminate when the carbon brushes are worn to the point of needing replacement, service should be done by a qualified electrician.

## OPERATION

The brush is attached in the following manner: Tip machine backward with handle on floor. Brush is then inserted over the lugs on the bottom of the gear unit and twisted to the left. This secures the clutch plate of the brush over the lugs on the gear unit in the correct driving position.

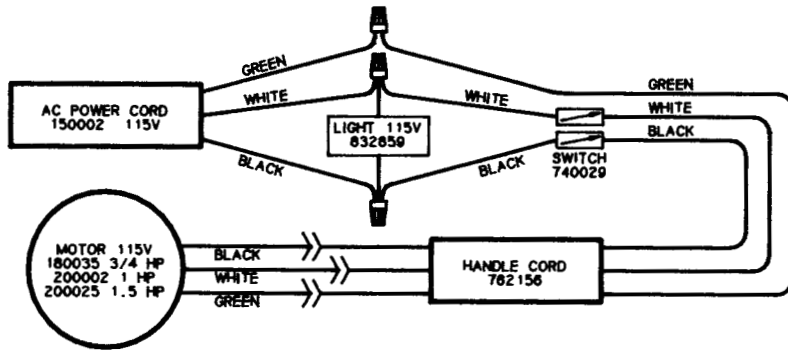
LOWER HANDLE ASSEMBLY TO WAIST HIGH POSITION AND LOCK.

Due to the rotation of a single disc machine, it will naturally have a tendency to move to the right or left, depending on the operator's slight pressure either up or down on the handle. If the handle is lifted slightly up, the machine will travel to the right; a downward pressure, and it will travel to the left. It is this maneuverability that enables an operator to cover large areas in a short time with the least amount of effort. The machine can be made to operate without travel by balancing ... KEEPING THE BRUSH PRESSURE ON THE FLOOR EQUAL. With a few minutes of practice in a large area, you will have perfect fingertip control of the machine. This equipment is equipped with trigger safety interloc. Refer to diagram pictured.

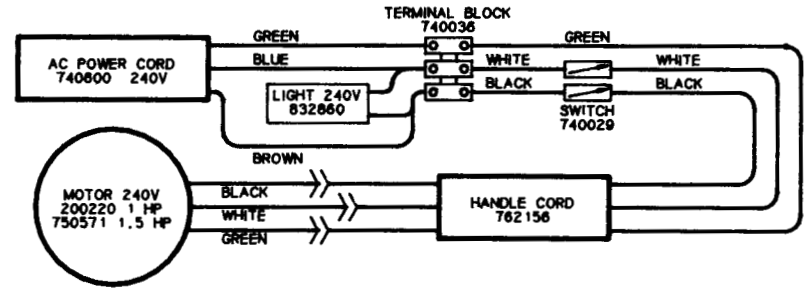


MODEL M17120-00, 01, 02  
 MODEL M20120-01, 02, 03

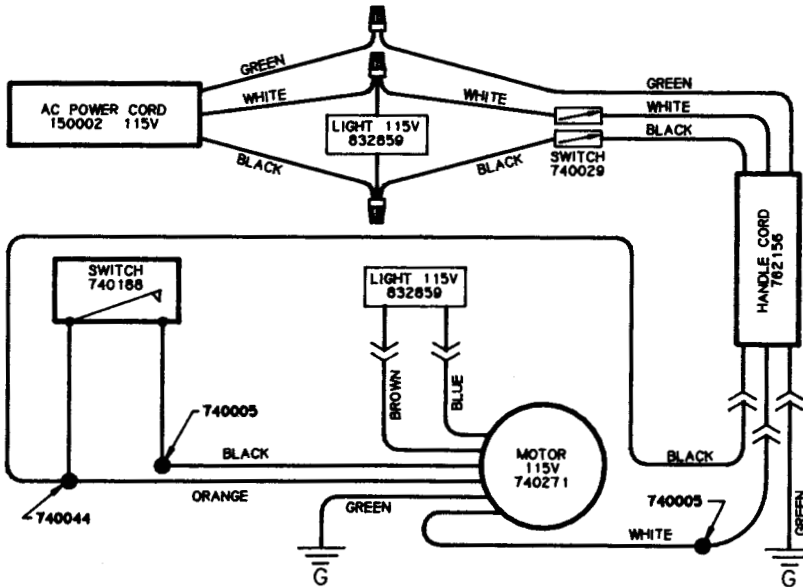
MODEL M17240-01, 02, 03  
 MODEL M20240-01, 02, 03



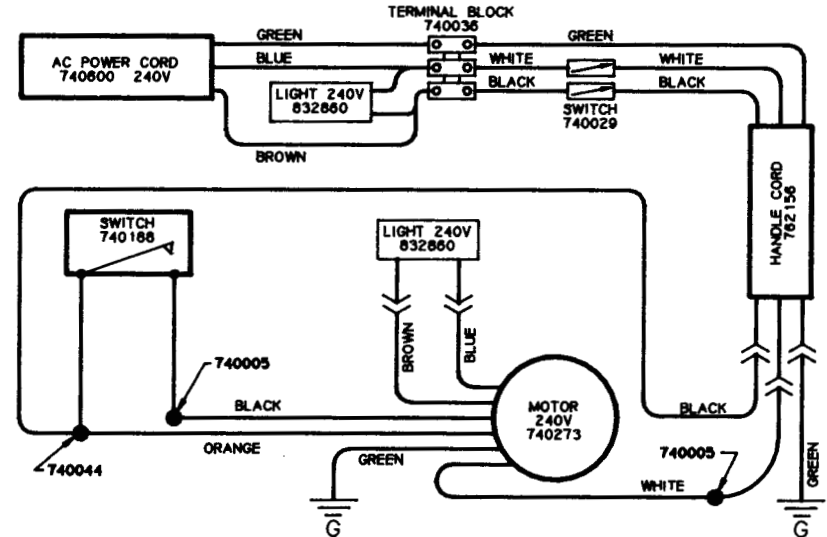
WIRING DIAGRAM SINGLE SPEED 115V



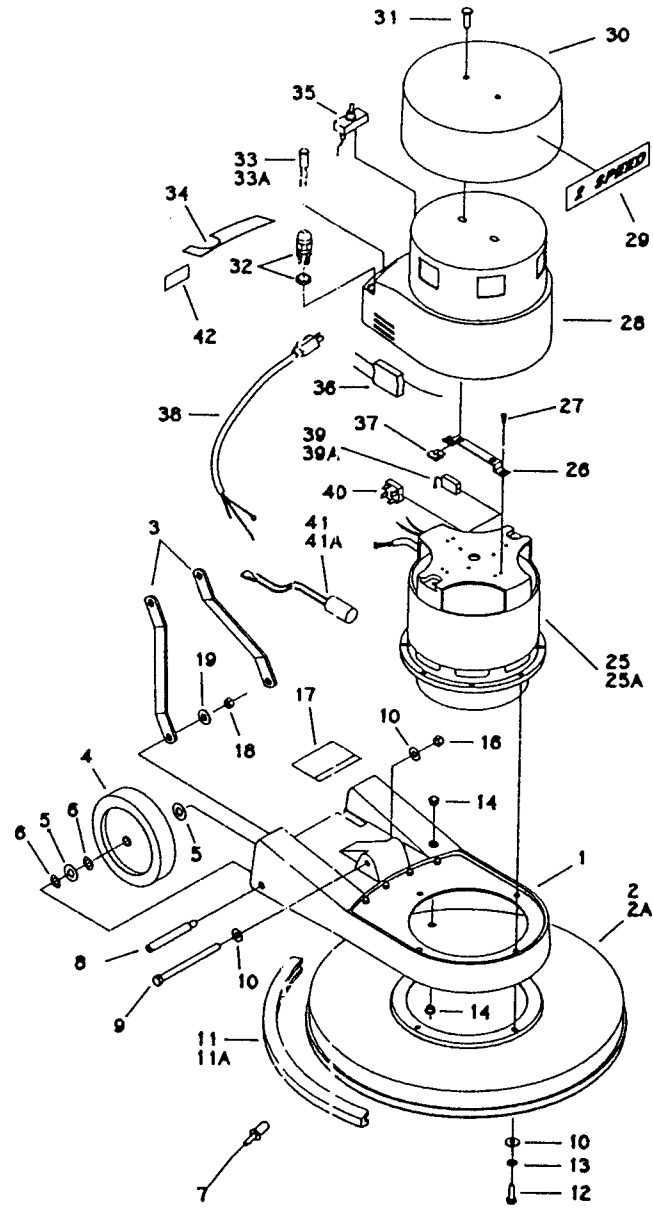
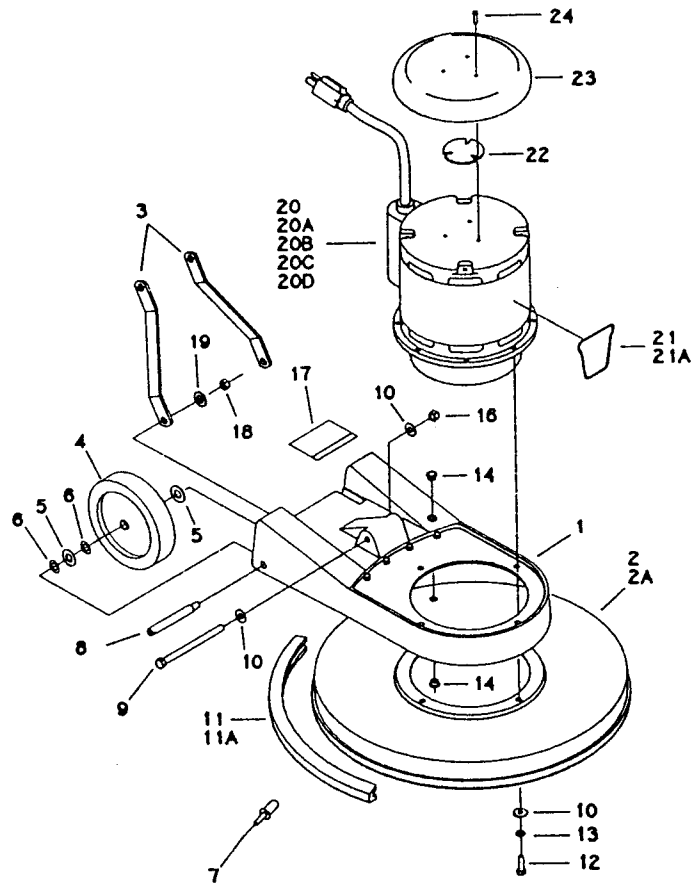
WIRING DIAGRAM SINGLE SPEED 240V



WIRING DIAGRAM 2-SPEED 115V



WIRING DIAGRAM 2-SPEED 240V

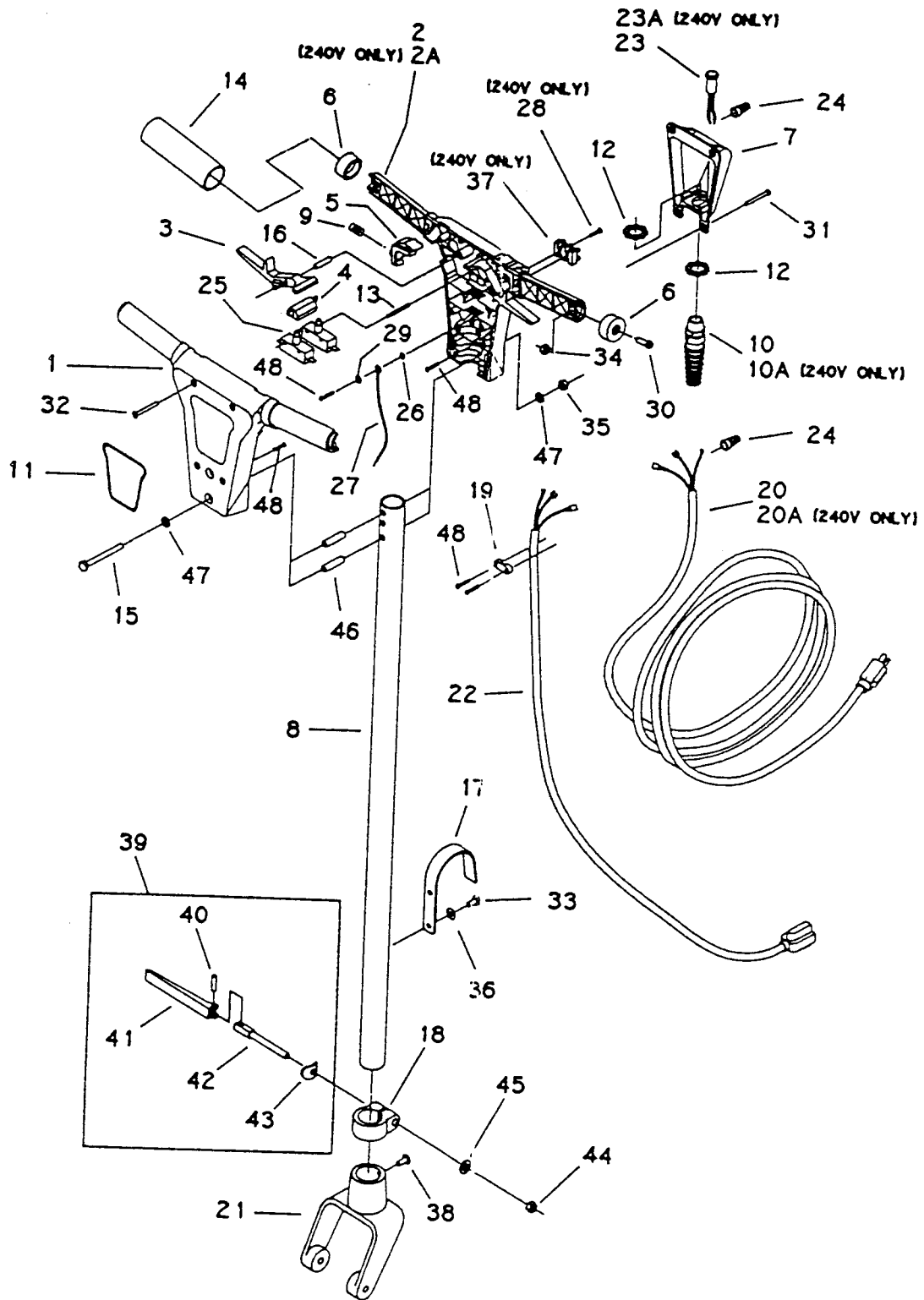


## Parts List

| Item | Part No.  | Qty. | Description                  |
|------|-----------|------|------------------------------|
| 1    | 190000PTD | 1    | Base Casting                 |
| 2    | 190001PTD | 1    | Housing 17                   |
| 2A   | 190002PTD | 1    | Housing 20                   |
| 3    | 807248    | 2    | Handle Brace                 |
| 4    | 190030    | 2    | Wheel                        |
| 5    | 711510    | 4    | WSR-Flat .50 x 1.00          |
| 6    | 711524    | 4    | WSR-Wave .52 x .87           |
| 7    | 190021    | 3    | Rivet                        |
| 8    | 190011    | 2    | Axle                         |
| 9    | 760261    | 1    | Bolt, Yoke                   |
| 10   | 711515    | 6    | WSR-Flat .44 x .87           |
| 11   | 190017    | 1    | Bumper 17                    |
| 11A  | 190018    | 1    | Bumper 20                    |
| 12   | 711237    | 4    | Bolt-HH 5/16-18 x 2.00       |
| 13   | 711545    | 4    | WSR-Helical 5/16             |
| 14   | 830949    | 2    | Snap Bushing                 |
| 15   |           |      |                              |
| 16   | 711375    | 1    | Nut-Nyloc 3/8-16             |
| 17   | 715062    | 1    | Decal, Warning               |
| 18   | 711439    | 2    | Nut-Flanged Wizz 3/8-16      |
| 19   | 711592    | 2    | WSR-Nylon .50 x 1.00         |
| 20   | 180035    | 1    | Motor 3/4 HP w/Gear 115V     |
| 20A  | 200002    | 1    | Motor 1 HP w/Gear 115V       |
| 20B  | 200025    | 1    | Motor 1.5 HP w/Gear 115V     |
| 20C  | 200220    | 1    | Motor 1 HP w/Gear 240V       |
| 20D  | 750571    | 1    | Motor 1.5 HP w/Gear 240V     |
| 21   | 715168    | 1    | Decal, Minuteman 17          |
| 21A  | 715169    | 1    | Decal, Minuteman 20          |
| 22   | 805635    | 1    | Cork Gasket                  |
| 23   | 160048PTD | 1    | Motor Cover                  |
| 24   | 710153    | 3    | SCR-MC 10-32 x .37           |
| 25   | 740271    | 1    | Motor/Gear Assembly 115V     |
| 25A  | 740273    | 1    | Motor/Gear Assembly 240V     |
| 26   | 760123    | 1    | Motor Cover Mounting Bracket |
| 27   | 711124    | 2    | SCR-ST-B 10 x .38            |
| 28   | 190020    | 1    | Motor Cover                  |
| 29   | 715075    | 1    | Decal 2-Speed                |
| 30   | 829194    | 1    | Motor Top Cover              |
| 31   | 710196    | 1    | SCR-MC 5/16-18 x .63         |
| 32   | 830696    | 1    | Stain Relief                 |
| 33   | 832859-1  | 1    | Indicator Light 115V         |
| 33A  | 832860-1  | 1    | Indicator Light 240V         |
| 34   | 715170    | 1    | Decal, High/Low              |
| 35   | 740188    | 1    | Switch 20 amp. 1.5 HP        |
| 36   | 829489    | 1    | Foam Dampener                |
| 37   | 832829    | 1    | Tinnerman Nut                |
| 38   | 762146    | 1    | Cord, Pigtail                |
| 39   | 762160    | 4    | Carbon Brush 115V            |
| 39A  | 740281    | 4    | Carbon Brush 240V            |
| 40   | 740202    | 1    | Bridge Rectifier             |
| 41   | 740259    | 1    | Traic Control 115V           |
| 41A  | 740280    | 1    | Traic Control 240V           |
| 42   | 715067    | 1    | Decal, Brush Wear Indicator  |



# 190100NP Handle Assembly



## PARTS LIST

| Item | Part No.  | Qty. | Description              |
|------|-----------|------|--------------------------|
| 1    | 190022    | 1    | Switch Box Front         |
| 2    | 190023    | 1    | Switch Box Rear          |
| 2A   | 190004MCH | 1    | Switch Box Rear, 240V    |
| 3    | 190033B   | 2    | Switch Trigger           |
| 4    | 190008    | 1    | Switch Cap               |
| 5    | 190009    | 2    | Safety Button            |
| 6    | 190006    | 2    | End Cap                  |
| 7    | 190024    | 1    | Electrical Box Rear      |
| 8    | 190012    | 1    | Tube Handle              |
| 9    | 190015    | 2    | Trigger Spring           |
| 10   | 150003    | 1    | Strain Relief, 115V      |
| 10A  | 150004    | 1    | Strain Relief, 240V      |
| 11   | 715175    | 1    | Decal, Minuteman Runner  |
| 12   | 711400    | 2    | Nut-Pipe Lock 1/2        |
| 13   | 711619    | 2    | Roll Pin 1/8 x 1.50      |
| 14   | 190016    | 2    | Foam Grip                |
| 15   | 710186    | 2    | SCR-MC 1/4-20 x 2.25 TH  |
| 16   | 711658    | 2    | Roll Pin 1/4 x 1.0       |
| 17   | 170040PLT | 1    | Cord Hook                |
| 18   | 16224     | 1    | Handle Clamp             |
| 19   | 190010    | 1    | Strain Relief            |
| 20   | 150002    | 1    | Orange Cord Set, 115V    |
| 20A  | 740600    | 1    | Cord Set, 240V           |
| 21   | 803379    | 1    | Yoke                     |
| 22   | 190013    | 1    | COrd, Handle             |
| 23   | 832859    | 1    | Indicator Light, 115V    |
| 23A  | 832860    | 1    | Indicator Light, 240V    |
| 24   | 740005    | 3    | Wire Cap 14-18           |
| 25   | 740029    | 2    | Switch 1.5 HP            |
| 26   | 711553    | 1    | WSR-Lock #8              |
| 27   | 740363    | 1    | Wire Assy Green w/Yellow |
| 28   | 712088    | 2    | SCR-Hi/Lo 8-18 x .75     |
| 29   | 711502    | 1    | WSR-Flat 8               |
| 30   | 710380    | 2    | SCR-MC 1/4-20 x .75      |
| 31   | 711160    | 4    | SCR-Hi/Lo 10 x .63       |
| 32   | 711162    | 4    | SCR-Hi/Lo 10 x 1.50      |
| 33   | 711202    | 2    | Bolt-HH 1/4-20 x .50     |
| 34   | 711316    | 2    | Nut-Hex 1/4-20           |
| 35   | 711373    | 2    | Nut-Nyloc 1/4-20         |
| 36   | 711544    | 2    | WSR-Helical 1/4          |
| 37   | 740036    | 1    | Terminal Block, 240V     |
| 38   | 710579    | 2    | SCR-MC 1/4-20 x .62      |
| 39   | 807674    | 1    | Kick Lever Kit           |
| 40   | 806561    | 1    | Dowel Kit                |
| 41   | 806558    | 1    | Kick Lever               |
| 42   | 807190    | 1    | Bolt Cam                 |
| 43   | 806555    | 1    | Washer Cam               |
| 44   | 711374    | 1    | Nut-Nyloc 5/16-18        |
| 45   | 711506    | 1    | WSR-Flat 5/16            |
| 46   | 190029    | 2    | Sleeve                   |
| 47   | 711504    | 4    | WSR-Flat 1/4             |
| 48   | 711128    | 5    | SCR-Hi/Low #8-18 x .625  |

# LIMITED WARRANTY

Minuteman International, Inc. warrants to the original purchaser/user that this product is free from defects in workmanship and materials under normal use and service for a period of three years from date of purchase. In addition, Minuteman International, Inc. will, at its option, honor labor warranty claims for the first 12 months from date of sale, provided such claims are submitted through and approved by factory authorized repair stations. Minuteman International, Inc. will, at its option, repair or replace without charge, except for transportation costs, parts that fail under normal use and service when operated and maintained in accordance with the applicable operation and instruction manuals.

This warranty does not apply to normal wear, or to items whose life is dependent on their use and care, such as belts, cords, switches, hoses, rubber parts, electrical motor components or adjustments. Parts not manufactured by Minuteman International, Inc. such as engines, batteries, battery chargers, hydraulic pumps, and tires are covered by and subject to the warranties and/or guarantees of their manufacturers. Please contact Minuteman International, Inc. for procedures in warranty claims against these manufacturers.

**Special warning to purchaser** — Use of replacement filters and/or prefilters not manufactured by Minuteman International, Inc. or its designated licensees, will void all warranties expressed or implied.

A potential health hazard exists without exact original equipment replacement.

All warranted items become the sole property of Minuteman International, Inc. or its original manufacturer, whichever the case may be.

Minuteman International, Inc. disclaims any implied warranty, including the warranty of merchantability and the warranty of fitness for a particular purpose. Minuteman International, Inc. assumes no responsibility for any special, incidental or consequential damages.

This limited warranty is applicable only in the U.S.A. and Canada, and is extended only to the original user/purchaser of this product. Customers outside the U.S.A. and Canada should contact their local distributor for export warranty policies. Minuteman International, Inc. is not responsible for costs or repairs performed by persons other than those specifically authorized by Minuteman International, Inc. This warranty does not apply to damage from transportation, alterations by unauthorized persons, misuse or abuse of the equipment, use of non-compatible chemicals, or damage to property, or loss of income due to malfunctions of the product.

If a difficulty develops with this machine, you should contact the dealer from whom it was purchased.

This warranty gives you specific legal rights, and you may have other rights which vary from state to state. Some states do not allow the exclusion or limitation of special, incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions and limitations may not apply to you.

## ***Minuteman***<sup>®</sup>

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