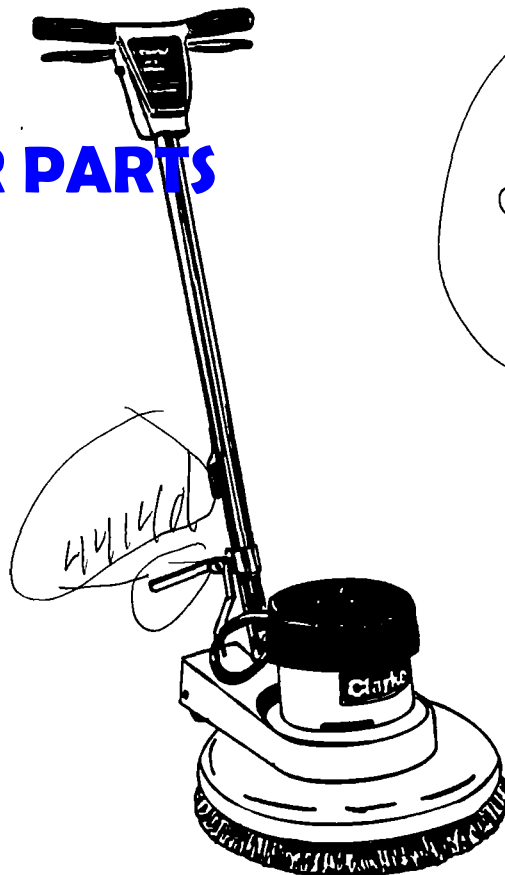


Clarke®



CLICK TO ORDER PARTS



VP-16, VP-18 & VP-20 Owner's Manual

READ THIS BOOK

This book has important information for the use and safe operation of this machine. Failure to read this book prior to operating or attempting any service or maintenance procedure to your Clarke machine could result in injury to you or to other personnel; damage to the machine or to other property could occur as well. You must have training in the operation of this machine before using it. If you or your operator(s) cannot read English, have this manual explained fully before attempting to operate this machine.

Si Ud. o sus operadores no pueden leer el Ingles, se hagan explicar este manual completamente antes de tratar el manejo o servicio de esta maquina.

All directions given in this book are as seen from the operator's position at the rear of the machine.

For new books write to: Clarke Industries Inc., 2100 Highway 265, Springdale, Arkansas 72764.

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NOTE: This machine is intended for commercial use.

OPERATOR SAFETY INSTRUCTIONS



WARNING














AVERTISSEMENT



ADVERTENCIA

| | |
|-----------------------|--|
| DANGER means: | Severe bodily injury or death can occur to you or other personnel if the DANGER statements found on this machine or in this Owner's Manual are ignored or are not adhered to. Read and observe all DANGER statements found in this Owner's Manual and on your machine. |
| WARNING means: | Injury can occur to you or to other personnel if the WARNING statements found on your machine or in this Owner's Manual are ignored or are not adhered to. Read and observe all WARNING statements found in this Owner's Manual and on your machine. |
| CAUTION means: | Damage can occur to the machine or to other property if the CAUTION statements found on your machine or in this Owner's Manual are ignored or are not adhered to. Read and observe all CAUTION statements found in this Owner's Manual and on your machine. |

-  **DANGER:** Failure to read the Owner's Manual prior to operating or attempting any service or maintenance procedure to your machine could result in injury to you or to other personnel; damage to the machine or to other property could occur as well. You must have training in the operation of this machine before using it. If you or your operator(s) cannot read English, have this manual explained fully before attempting to operate this machine.
-  **DANGER:** To reduce the risk of fire, use only commercially available floor cleaners and waxes intended for machine application.
-  **DANGER:** Floor sanding can result in an explosive mixture of fine dust and air. To reduce risk of explosion, use floor sanding machine only in well ventilated area.
-  **DANGER:** Operating a machine that is not completely or fully assembled could result in injury or property damage. Do not operate this machine until it is completely assembled. Inspect the machine carefully before operation.
-  **DANGER:** Electrocution could occur if maintenance and repairs are performed on a unit that is not disconnected from the power source. Disconnect the power supply before attempting any maintenance or service. Always remove the electrical plug from the electrical outlet before changing the brush, pad or other attachment and before leaving the machine.
-  **DANGER:** Using a machine with a damaged power cord could result in an electrocution. Do not use the machine if the power cord is damaged. Do not use the electrical cord to move the machine.
-  **WARNING:** Maintenance and repairs performed by unauthorized personnel could result in damage or injury. Maintenance and repairs must be performed by authorized personnel only. Keep all fasteners tight. Keep adjustments according to specifications.
-  **WARNING:** Electrical components of this machine can "short-out" if exposed to water or moisture. Keep the electrical components of the machine dry. Wipe the machine down after each use. For storage, keep the machine in a dry building.
-  **WARNING:** Always use a three-wire electrical system connected to the electrical ground. For maximum protection against electric shock, use a circuit that is protected by a ground fault interrupter. Consult your electrical contractor.
-  **WARNING:** To prevent damage to the power cord, do not let the brush, pad, pad driver or wheels touch the power cord when the machine is running. Always lift the cord over the machine. Do not pull the power cord to move the machine.
-  **WARNING:** Operating a machine without observing all labels and instructional information could result in injury or damage. Read all machine labels before attempting to operate. Make sure all of the labels and instructional information are attached or fastened to the machine. Get replacement labels and decals from your authorized distributor.

OPERATOR SAFETY INSTRUCTIONS (cont.)



WARNING: Use of this machine as a step or furniture could result in injury or damage. Do not use this machine as a step or furniture. Do not ride on this machine.



WARNING: To avoid injury keep hands, feet and loose clothing away from all moving parts of this machine.



WARNING: Injury to operator or bystanders could occur if an abrupt change in floor surface texture is encountered when using this machine. Abrupt change in floor texture can cause a sudden pulling motion by this machine. This sudden pulling motion can result in loss of control of the machine which could injure the operator or bystanders. Avoid motions that could cause machine to cross from a smooth floor surface to a carpeted or rough texture floor surface. Avoid motions that could allow the machine to come in contact with low obstacles, such as floor electrical outlets, door stops or entry molding, etc.



CAUTION: The machine is heavy. Get assistance before attempting to transport or move it.

MACHINE INTRODUCTION

The Clarke® Model VP-16, VP-18 and VP-20

The Clarke models VP-16, 18 and 20 are floor maintaining machines that can be used for polishing, spraying, buffing, stripping and shampooing. The machines can be used on wood, vinyl, terrazzo or cement floors. With the shampoo brush, the machines can be used to clean carpet.

HOW TO PREPARE THE MACHINE FOR OPERATION

⚠ WARNING: Always remove the electrical plug from the electrical outlet before installing or changing the pad or brush.

How To Install The Brush Or Pad Driver

To install the brush or pad driver, follow this procedure:

1. Put the handle in the vertical position.
2. To lock the handle, push the locking lever down.
3. Tilt the machine backward until the handle is on the floor.
4. Put one foot on each side of the machine. See figure 1.
5. Align the lugs (1) on the locking plate into the pad driver adapter openings (2). See figure 2.
6. To lock the brush or pad into position, turn the brush or pad driver clockwise.
7. Turn the brush or pad counterclockwise to unlock and remove the brush.
8. Lift the machine to the vertical position.

NOTE: To prevent damage to the brush or pad driver, remove the accessory while not in use. Keep the brush in a cool, dry place.

How To Adjust The Handle

To adjust the handle, follow this procedure:

1. The locking lever is on the lower part of the handle tube. Use your foot to lift the lever. See figure 3.
2. Lower the handle to the best operating position.

NOTE: For the best operating position, keep your back straight, bend only your arms. See Figure 4.

3. Using your foot, push the locking lever down.
4. Hold the handle against your body for the best control.

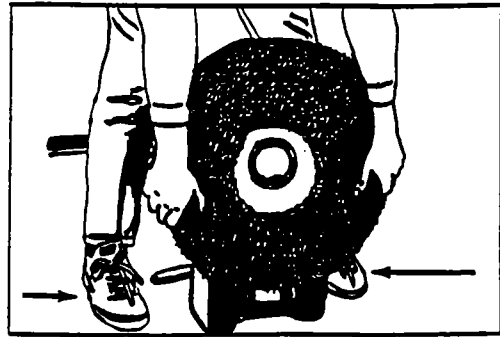


Figure 1

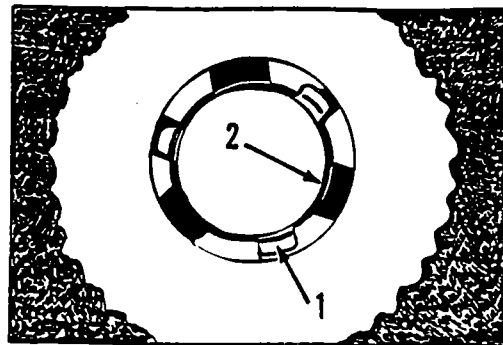


Figure 2

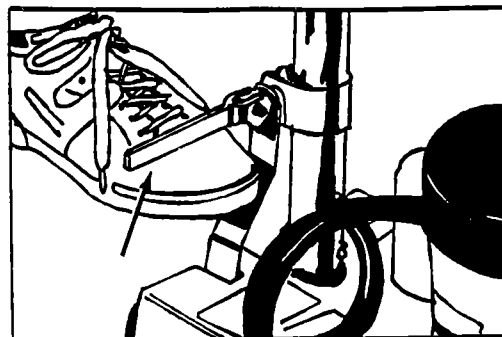


Figure 3

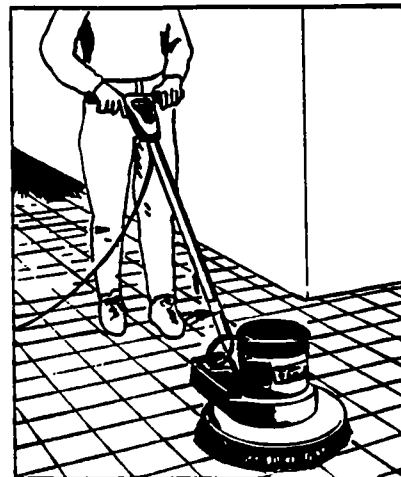



Figure 4

ACCESSORIES

The following accessories are available.

1. Polishing and waxing brushes.
2. Brushes with natural or synthetic bristles for scrubbing.
3. Brushes with steel wire bristles.
4. Synthetic pad holders.
5. Synthetic pads for polishing, scrubbing, stripping and spray buffing.
6. Lambswool polishing pad.
7. Brushes with metal or wood backs and with holes to let the solution flow through.
8. Solution tank.
9. Sanding discs.
10. Solution Buff Accessory-Kit number 440570-0.

 **WARNING: Fine dust from a floor sanding operation can cause an explosion. Use a floor sanding machine only in an area with good ventilation.**

120 VOLT MACHINES

Instructions for connection to the power supply and the electrical ground.

This product must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electrical shock. This product 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 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 product - If it will not fit the outlet, have a proper outlet installed by a qualified electrician.

This product is for use on a nominal 120 volt circuit and has a grounding attachment plug that looks like the plug illustrated in Fig. 5. Make sure that the product is connected to an outlet having the same configuration as the plug. No adaptor should be used with this product.

- ⚠ WARNING:** To prevent possible electric shock, protect the machine from rain. Keep the machine in a dry building.
- ⚠ WARNING:** To prevent possible electric shock, always use a 3-wire electrical system connected to the electrical ground. For maximum protection against electrical shock, use a circuit that is protected by a ground fault circuit interrupter. Consult your electrical contractor.
- ⚠ WARNING:** Do not cut, remove or break the ground pin. If the outlet does not fit the plug, consult your electrical contractor.
- ⚠ WARNING:** Have worn, cut or damaged cords replaced by an authorized service person.

EXTENSION CORDS

Use only an approved extension cord with three conductors, a plug with three terminals, and a connector body with three holes. The machine has a power cord with wire size 14 AWG (AWG means American Wire Gauge).

- ⚠ WARNING:** If you use an extension cord, use an extension cord with minimum wire size 12 AWG. Do not use an extension cord longer than 50 feet. Do not join two extension cords.

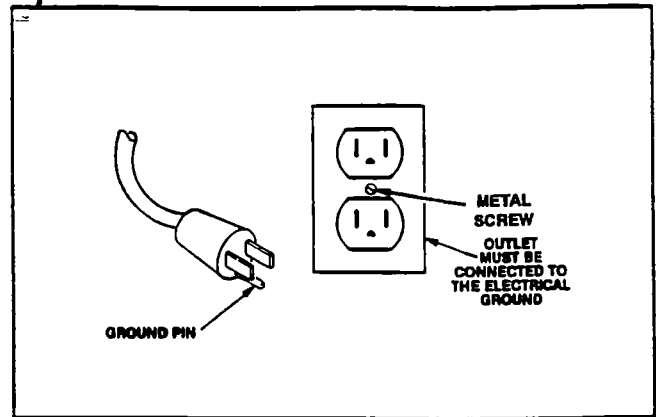


Figure 5

230 VOLT MACHINES

Instruction for connection to the power supply and the electrical ground

CAUTION: This machine will operate only on the AC frequency and electrical voltage shown on the nameplate. Make sure you have the correct frequency and voltage before connecting the power cord to an outlet.

This machine must be connected to the electrical ground to protect the operator from electric shock. The machine has a power cord with two main conductors and one earthing conductor. Connect the plug to the type of receptacle shown in figure 6. The green and yellow conductor in the cord is the ground wire. Never connect this wire to any terminal other than the ground terminal.

WARNING: Always use this machine with an AC three-conductor electrical system connected to the electrical ground. Replace any worn, cut, or damaged cords. Replace any damaged plugs, receptacles, or connector bodies. Do not move the machine over an electrical cord. Always lift the cord over the machine.

EXTENSION CORDS

Use only an approved extension cord with two main conductors and one earthing conductor. The machine has a power cord with wire size 1.5 mm².

WARNING: If you use an extension cord, use an extension cord with minimum wire size 1.5mm². Do not use an extension cord longer than 15 meters. Do not join two extension cords.

WARNING: Do not cut, remove, or break the ground terminal. Do not try to fit a three-terminal plug into a receptacle or connector body that does not fit the plug. If the receptacle or connector body does not fit the plug, see your Authorized person to make the connection.

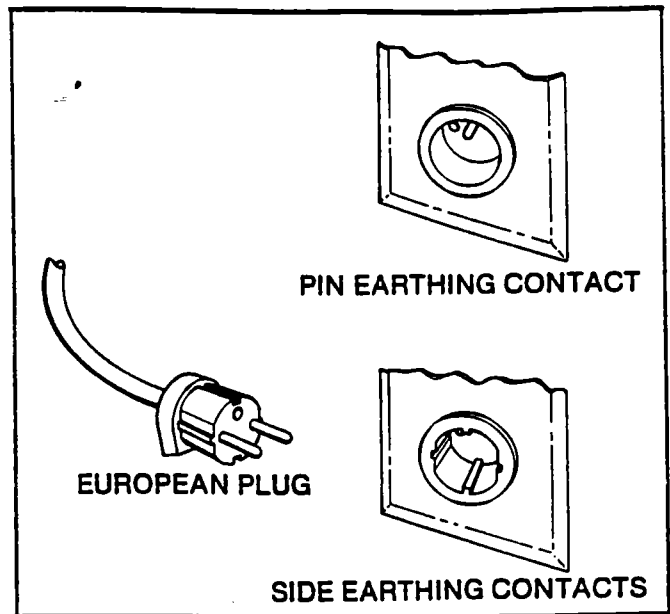


Figure 6

HOW TO OPERATE THE MACHINE

How To Start/Stop The Machine

⚠ WARNING: Never start a polisher when the handle is in the vertical position.

The switch to start and stop the machine is activated by the interlock switch (1) and the levers (2) under the handle grips. See figure 7.

To start the machine, follow this procedure:

1. Lower the handle
2. Lock the handle in the best position for operation.

NOTE: Make sure you hold the handle with both hands.

3. Push the interlock switch, and apply pressure to the levers. See figure 8.

How To Control The Machine

NOTE: Make sure you hold the handle with both hands.

The side to side movement of the machine is controlled by raising the handle and pressing down on the handle. To move the machine to the left, press down on the handle slightly. To move the machine to the right, raise the handle slightly.

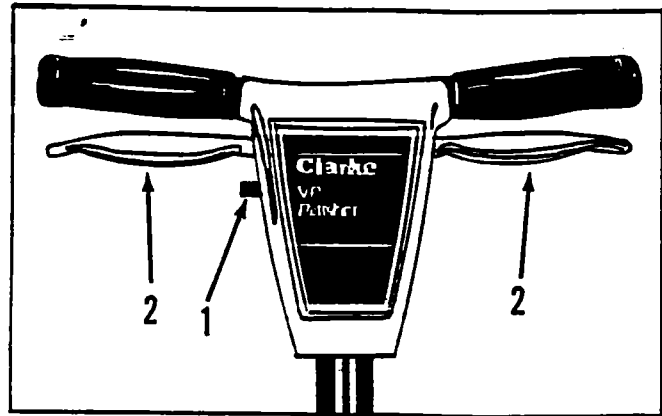


Figure 7

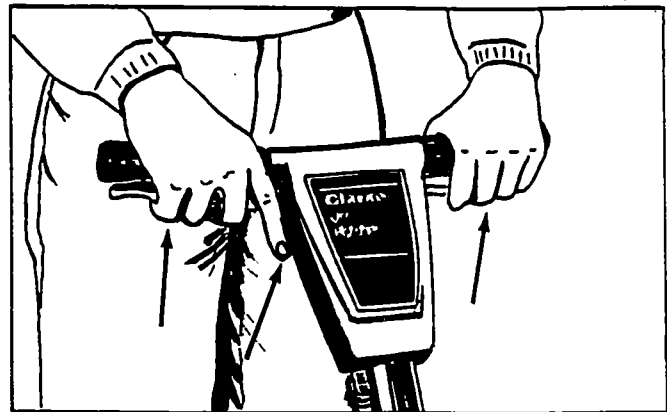


Figure 8

MAINTENANCE

⚠ WARNING: Maintenance must be done by authorized personnel only.

⚠ CAUTION: Keep all adjustments according to specifications.

Maintenance Instructions

Return the machine to a Clarke Authorized Service Location every 12 months for maintenance inspections.

Switches

⚠ WARNING: All electrical repairs must be done by authorized personnel only. The machine must be tested after electrical repairs to make sure it is safe to operate. Disconnect the electrical plug from the electrical outlet before doing any electrical repairs.

The start and stop switch has an interlock which prevents the contacts from being closed. If any part of the switch is not operating, replace the part. If any part of the electrical system of the machine is not operating or is damaged, replace the part. Make sure all connections are tight. Return the machine to the Clarke Service Branch or a Clarke Authorized Service Center for electrical repairs or testing.

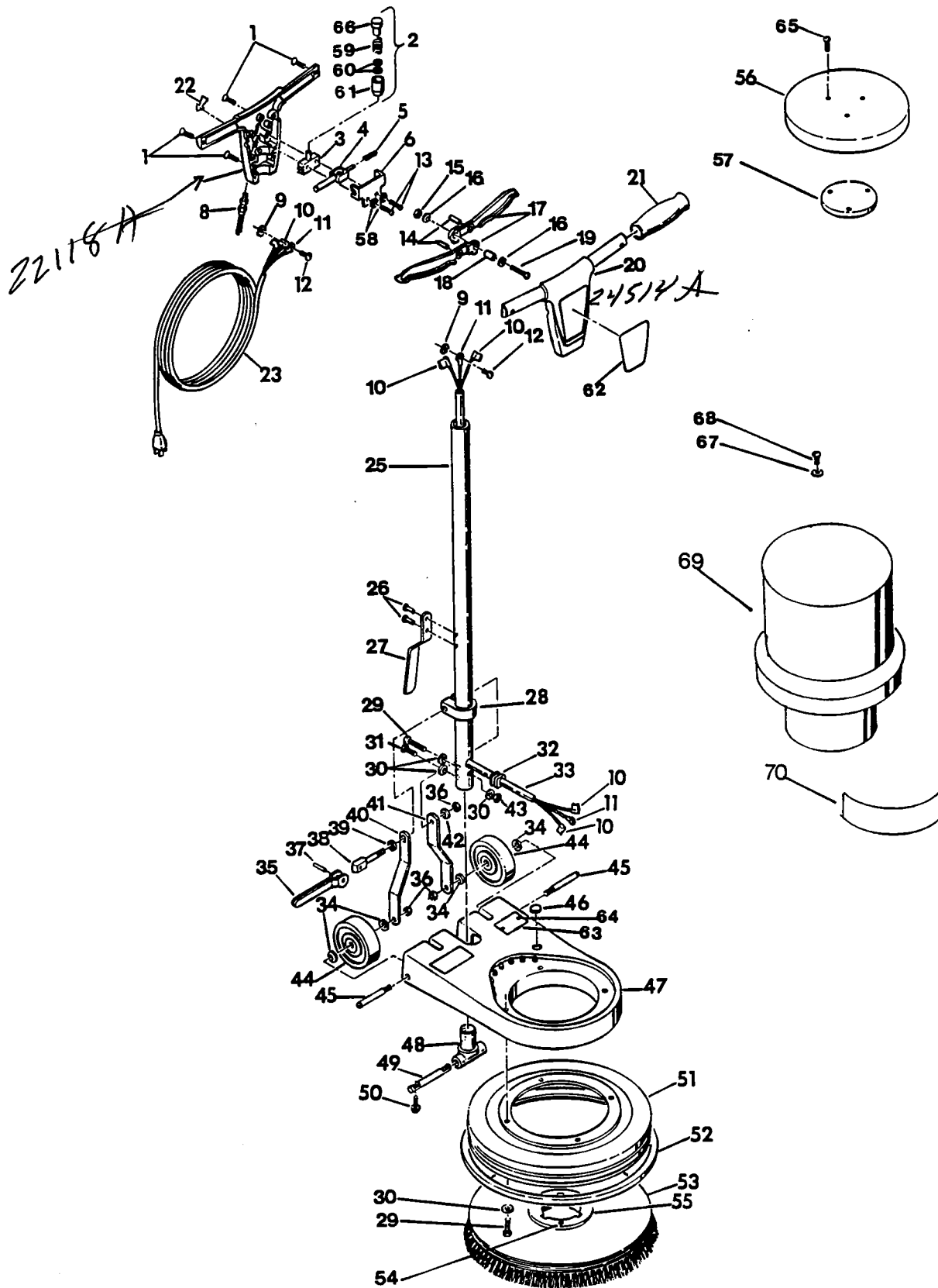
Maintenance Of The Motor

If repairs to the gear unit or motor are needed, do not disassemble the gears and motor. Return the machine to the nearest Clarke Service Branch or Clarke Authorized Service Center.

For safe operation, and longer life to your Clarke product, use only Clarke parts.

NOTE: The grease for the gear box needs to be changed every year.

Clarke® Models VP-16, VP-18 and VP-20
 Assembly Drawing 3/94
 115V or 230V with Metal Handle



Clarke® Models VP-16, VP-18 and VP-20
Assembly Parts List 3/94
115V or 230V with Metal Handle

| Ref. | Part No. | Description | Qty. |
|------|----------|-------------------------|------|
| 1 | 962487 | Screw - 1/4-20 x 1 | 5 |
| 2 | 16029A | Kit - Switch | 1 |
| 3 | 911690 | Switch - FM | 1 |
| 4 | 448573 | Stop - Switch Interlock | 1 |
| 5 | 58665A | Spring - Switch Lever | 1 |
| 6 | 440873 | Bracket - Switch Stop | 1 |
| 7 | 22118A | Cover - Switch Housing | 1 |
| 8 | 467504 | Strain Relief | 1 |
| 9 | 980621 | Washer - #1108 Shake | 2 |
| 10 | 911594 | Terminal | 6 |
| 11 | 911933 | Terminal | 3 |
| 12 | 962065 | Screw - 8-32 x 1/4 Pan | 2 |
| 13 | 962980 | Screw - 6-32 x 1 Pan | 2 |
| 14 | 925189 | Pin - 3/16 x 1" Dowel | 2 |
| 15 | 920296 | Nut - 10-24 Stop | 1 |
| 16 | 980982 | Washer - #10 Plain | 2 |
| 17 | 445174 | Lever - Switch | 2 |
| 18 | 508204 | Spacer | 1 |
| 19 | 962794 | Screw - 10-24 x 1 | 1 |
| 20 | 24514A | Housing - Front | 1 |
| 21 | 54501A | Grip - Handle | 2 |
| 22 | 445178 | Label - Interlock | 1 |
| 23 | 909014 | Cord Asm - Power | 1 |
| 24 | | | |
| 25 | 449071 | Tube - Handle | 1 |
| 26 | 930005 | Pop Rivet | 2 |
| 27 | 64325A | Hook - Cord | 1 |
| 28 | 442001 | Clamp - Handle Tube | 1 |
| 29 | 85817A | Screw - 5/16-18 x 2" | 5 |
| 30 | 980652 | Washer - 5/16 Lock | 7 |
| 31 | 85812A | Screw - 5/16-18 x 7/8 | 1 |
| 32 | 737502 | Strain Relief | 1 |
| 33 | 909022 | Cord Asm. - Handle | 1 |
| 34 | 980681 | Washer - Wave | 4 |
| 35 | 461404 | Cam - Locking | 1 |
| 36 | 920248 | Nut - 3/8-16 Hug Lock | 3 |
| 37 | 925592 | Pin - 1/4 x 1 Roll | 1 |
| 38 | 441301 | Bolt - Locking Cam | 1 |
| 39 | 980349 | Washer - Wear | 1 |
| 40 | 440301 | Arm Link - RH | 1 |

| Ref. | Part No. | Description | Qty. |
|------|---------------|--------------------------------------|------|
| 41 | 440302 | Arm Link - LH | 1 |
| 42 | 980645 | Washer - 3/8 Plain | 1 |
| 43 | 920110 | Nut - 5/16-18 | 1 |
| 44 | 419752-36181A | Wheel | 2 |
| 45 | 437761 | Shaft - Wheel | 2 |
| 46 | 57120A | Plug - Button | 1 |
| 47 | 23411A | Main Frame | 1 |
| 48 | 449201 | Tongue - Handle | 1 |
| 49 | 447702 | Shaft Tongue Pivot | 1 |
| 50 | 962830 | Screw - 1/4-20 x 1" | 2 |
| 51 | 67511A | Shield - 16" | 1 |
| | 67512A | Shield - 18" - 50784A | 1 |
| | 67513A | Shield - 20" | 1 |
| 52 | 441271 | Bumper - 16" Frame | 1 |
| | 441272 | Bumper - 18" Frame | 1 |
| | 441296-31225B | Bumper - 20" Frame | 1 |
| 53 | 410953 | Brush Assembly-VP-16 | 1 |
| | 410974 | Brush Assembly-VP-18 | 1 |
| | 480916 | Brush Assembly-VP-20 | 1 |
| 54 | 962427 | Screw - 12 x 1" | 3 |
| 55 | 466616 | Locking Plate | 1 |
| 56 | 32335AB | Cover - Drip | 1 |
| 57 | 38706A | Spacer - Drip Cover | 1 |
| 58 | 980607 | Washer - #6 Shake | 2 |
| 59 | 58664A | Spring - Switch Adapter | 1 |
| 60 | 87023A | Washer, #4 St. Steel | 2 |
| 61 | 30117A | Switch Adapter | 1 |
| 62 | 77127A | Label - VP | 1 |
| 63 | 446303 | Plate - Fire Warning | 1 |
| 64 | 930074 | Rivet - 1/8 Pop | 2 |
| 65 | 85383A | Screw - #10-32 x 3/4 | 3 |
| 66 | 51512A | Bushing #6 Nylon | 1 |
| 67 | 980603 | Washer - Shake | 1 |
| 68 | 962333 | Screw - 10-32 x 1/4 | 1 |
| 69 | * See Note | Motor and Gearbox | 1 |
| 70 | 73323A | Label - Clarke | 1 |
| Ref | 441401 | Assembly includes items 35, 37, & 38 | |

***NOTE:** For motor and gearbox service parts, see pages 14-19 and identify your particular motor and gearbox combination.

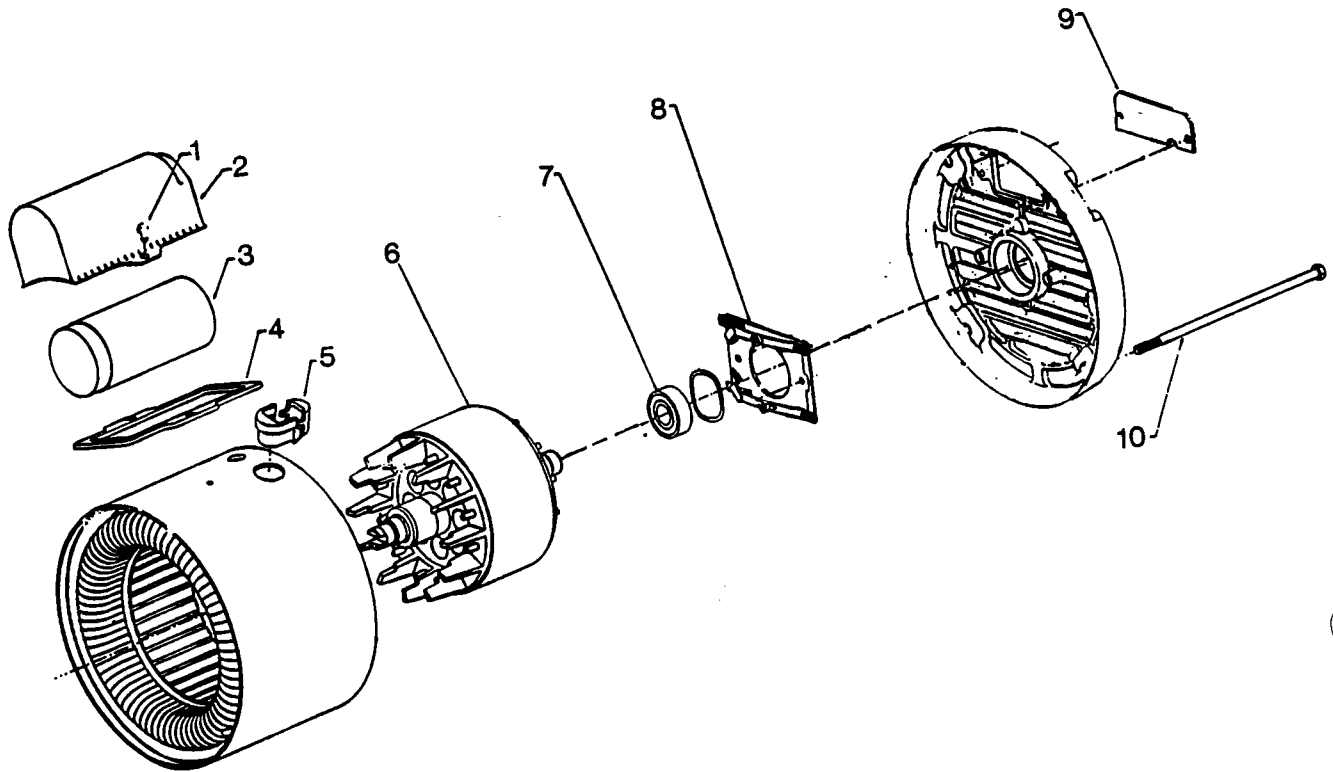
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**Clarke® Models VP-16, VP-18, and VP-20
(European) Plastic Handle Assembly Parts List 1/94**

| Ref | Part No. | Description | Qty. |
|-----|----------|----------------------|------|
| 1 | 962936 | Screw 13-16 x 3/4 Pn | 9 |
| 2 | 32306A | Cover | 1 |
| 3 | 449061 | Tube | 1 |
| 4 | 980603 | Washer #1110 | 2 |
| 5 | 911933 | Terminal Clip | 3 |
| 6 | 962929 | Screw 10-32 x 3/8 | 2 |
| 7 | 912179 | Terminal Clip | 2 |
| 8 | 38002A | Strain Relief | 1 |
| 9 | 42170A | Cord | 1 |
| 10 | 668370 | Spring | 1 |
| 11 | 500241 | Adapter | 1 |
| 12 | 38001A | Stop | 1 |
| 13 | 61124A | Bracket | 1 |
| 14 | 911690 | Switch | 1 |
| 15 | 61108A | Bracket | 1 |
| 16 | 446760 | Pin | 2 |
| 17 | 435131 | Lever | 2 |
| 18 | 925599 | Pin 5/32 x 1/2 | 1 |
| 19 | 962212 | Screw 6-32 x 7/8 | 2 |
| 20 | 432032 | Clamp - Cord | 1 |
| 21 | 67900A | Spring | 1 |
| 22 | 432034 | Cap | 1 |
| 23 | 962727 | Screw #8 - 32 x 1/2 | 2 |
| 24 | 962407 | Screw #8 - 32 x 1/2 | 2 |
| 25 | 35202A | Housing - Switch | 1 |
| 26 | | | |
| 27 | 73904A | Label - Switch Hsg. | 1 |
| 28 | 445178 | Label - Interlock | 1 |
| 29 | | | |
| 30 | 909022 | Cord Assembly | 1 |
| 31 | 911594 | Terminal Clip | 4 |
| 32 | 925600 | Pin - Dowel | 1 |
| 33 | 439031 | Tube | 1 |
| 34 | 930005 | Pop Rivet | 2 |
| 35 | 64325A | Hook Cord | 1 |
| 36 | 442001 | Clamp | 1 |
| 37 | 980652 | Washer 5/16 Lock | 7 |
| 38 | 85817A | Screw 5/16-18 x 2 | 5 |
| 39 | 85812A | Screw 5/16 -18 x 7/8 | 1 |
| 40 | 737502 | Strain Relief | 1 |
| 41 | 920110 | Nut - Stop | 1 |
| 42 | 446860 | Plug - Rubber | 1 |

**Clarke® VP-16, VP-18 & VP-20
Motor Assembly Drawing & Parts List 3/94
Beginning with Serial No. SC**

Note: If your machine has motor #44654A refer to this drawing for service part replacements.

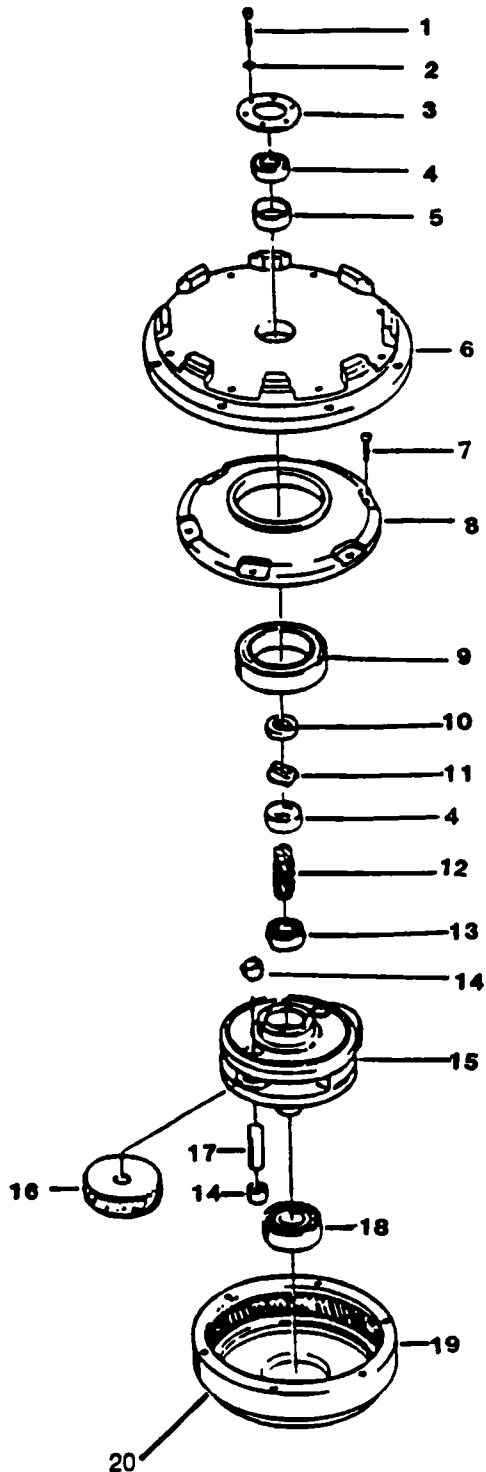


| Ref. | Part No. | Description | Qty. |
|------|----------|-----------------------------------|------|
| 1 | 53054A | Screw, Capacitor Can Mounting | 2 |
| 2 | 32389A | Capacitor Cover | 1 |
| 3 | 41310A | Capacitor | 1 |
| 4 | 54354A | Gasket, Capacitor Cover | 1 |
| 5 | 737502 | Strain Relief | 1 |
| 6 | 18603A | Rotor & Shaft Assy. (Includes #9) | 1 |
| 7 | 51189A | Bearing (Included with #7) | 1 |
| 8 | 47399A | Stationary Start Switch | 1 |
| 9 | 32388A | Cover, Terminal Panel | 1 |
| 10 | 80032A | Bolt, .250-20 x 6.50 LG | 4 |

**Clarke® VP-16, VP-18 & VP-20
Gearbox Assembly Drawing & Parts List 3/94**

Beginning with Serial No. SC

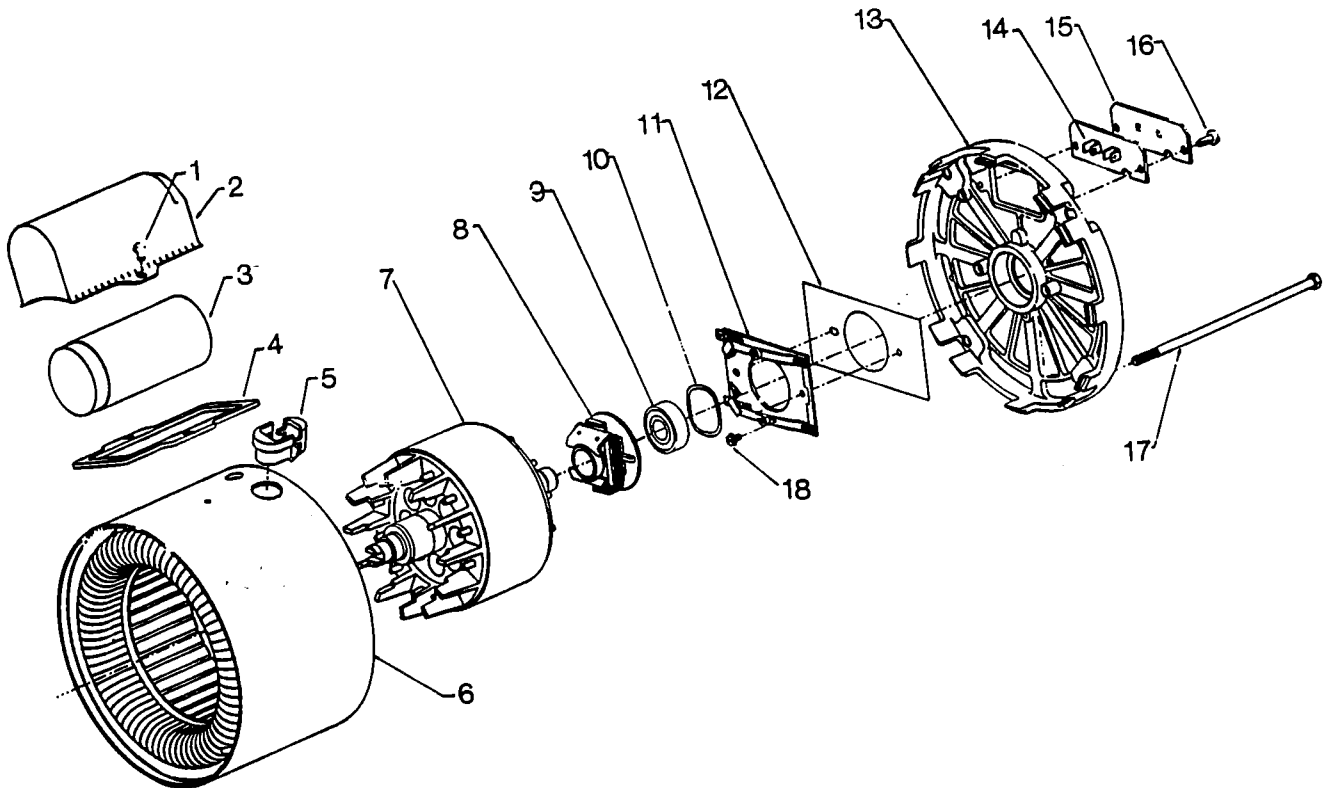
Note: If your machine has gearbox #54415A refer to this drawing for service part replacements.



| Ref. | Part No. | Description | Qty. |
|------|--------------------------|-----------------------|------|
| 1 | 962966 | Screw, Socket Hd. Cap | 6 |
| 2 | 980650 | Washer, Lock | 6 |
| 3 | 56922A | Plate, Retainer | 1 |
| 4 | 54415A 902606 | Bearing | 2 |
| 5 | 58513A | Spacer, Sleeve | 1 |
| 6 | 38403A | Endshield | 1 |
| 7 | 962794 | Screw 10-24" x 1" | 6 |
| 8 | 54858A | Cover, Housing | 1 |
| 9 | 902736 | Bearing | 1 |
| 10 | 58314A | Retainer | 1 |
| 11 | 442473 | Coupling | 1 |
| 12 | 58313A | Gear, Pinion | 1 |
| 13 | 902606 | Bearing | 1 |
| 14 | 902737 | Bearing, Needle | 4 |
| 15 | 52020A | Cage | 1 |
| 16 | 54408A | Gear, Idler | 2 |
| 17 | 58312A | Shaft | 2 |
| 18 | 902573 | Bearing | 1 |
| 19 | 54856A | Housing, Drive | 1 |

**Clarke® VP-16, VP-18 & VP-20
Motor Assembly Drawing & Parts List 1/94
Beginning with Serial No. OK**

Note: If your machine has motor #44635A refer to this drawing for service part replacements.

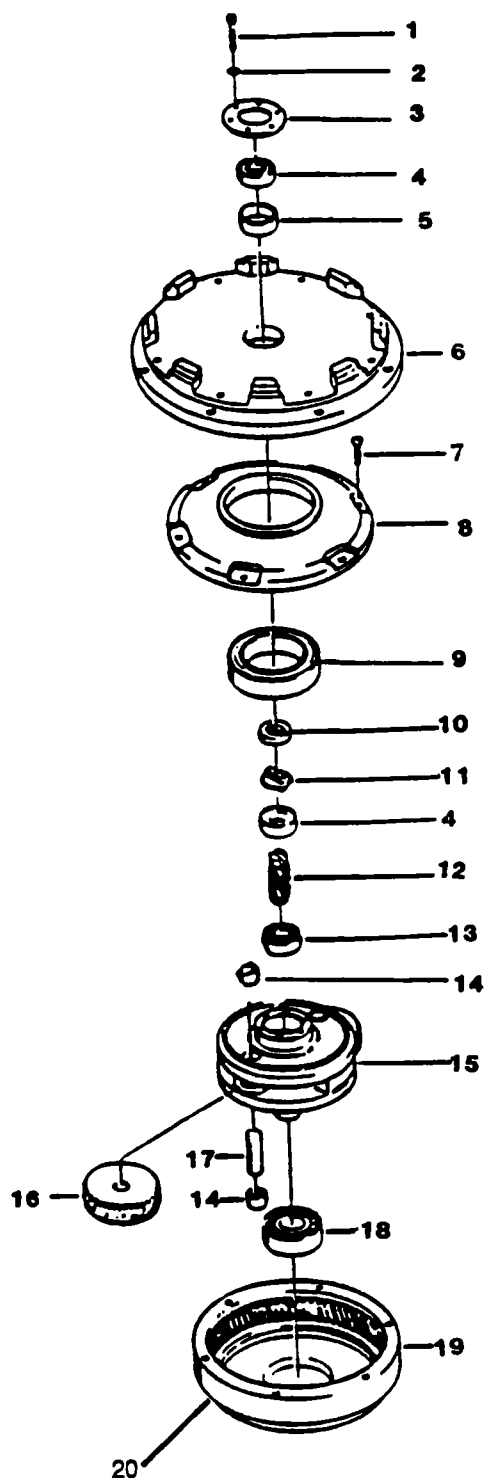


| Ref. | Part No. | Description | Qty. |
|------|----------|--------------------------------|------|
| 1 | 58030A | Screw #10-32 x.31 LG. | 2 |
| 2 | 52018A | Capacitor Case | 1 |
| 3 | 52019A | Start Capacitor | 1 |
| 4 | 54330A | Gasket, Capacitor Case | 1 |
| 5 | 737502 | Strain Relief | 1 |
| 6 | 58028A | Stator Frame Asm. - 60 Hz. | 1 |
| | 53976A | Stator Frame Asm. - 50 Hz. | 1 |
| 7 | 50400A | Rotor and Shaft Assembly | 1 |
| 8 | 58029A | Centrifugal Switch Asm. 60 Hz. | 1 |
| | 56461A | Centrifugal Switch Asm. 50 Hz. | 1 |
| 9 | 902550 | 203 Bearing | 1 |
| 10 | 58673A | Wave Spring Washer 60 Hz. | 1 |
| | 87501A | Wave Spring Washer 50 Hz. | 1 |
| 11 | 58032A | Stationary Switch | 1 |
| 12 | 54713A | Stationary Switch Insulation | 1 |
| 13 | 53523A | Bracket Opp. Shaft End | 1 |
| 14 | 58911A | Terminal Board Asm. | 1 |
| 15 | 58912A | Terminal Board | 1 |
| 16 | 58034A | Screw #10-32 x .31 | 2 |
| 17 | 50691A | Bolt, .250-28 x 6.75 LG | 4 |
| 18 | 58031A | Screw, #8-32 x .38 LG | 2 |

Clarke® VP-16, VP-18 & VP-20
Gearbox Assembly Drawing & Parts List 1/94

Beginning with Serial No. OK

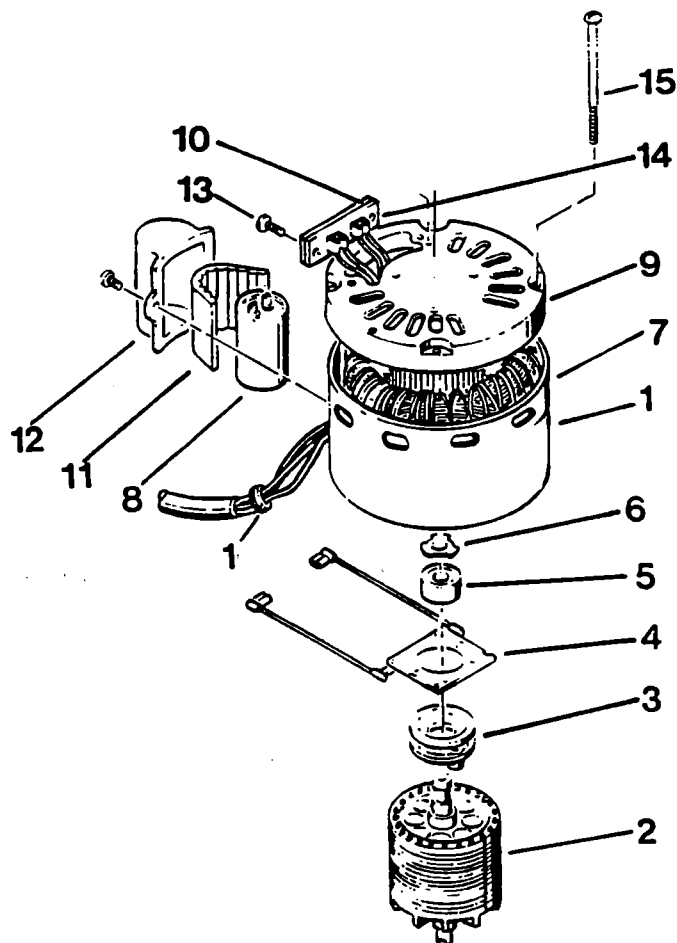
Note: If your machine has gearbox #54409A refer to this drawing for service part replacements.



| Ref. | Part No. | Description | Qty. |
|------|--------------------------|-----------------------|------|
| 1 | 962966 | Screw, Socket Hd. Cap | 6 |
| 2 | 980650 | Washer, Lock | 6 |
| 3 | 56922A | Plate, Retainer | 1 |
| 4 | 51481A 902606 | Bearing | 2 |
| 5 | 58513A | Spacer, Sleeve | 1 |
| 6 | 53524A | Endshield | 1 |
| 7 | 962794 | Screw 10-24" x 1" | 6 |
| 8 | 54858A | Cover, Housing | 1 |
| 9 | 902736 | Bearing | 1 |
| 10 | 58314A | Retainer | 1 |
| 11 | 442473 69195A | Coupling | 1 |
| 12 | 58313A | Gear, Pinion | 1 |
| 13 | 902606 | Bearing | 1 |
| 14 | 902737 | Bearing, Needle | 4 |
| 15 | 52020A | Cage | 1 |
| 16 | 54408A | Gear, Idler | 2 |
| 17 | 58312A | Shaft | 2 |
| 18 | 902573 | Bearing | 1 |
| 19 | 54856A | Housing, Drive | 1 |
| 20 | 503403 | Gasket | 1 |

**Clarke® VP-16, VP-18 & VP-20
Motor Assembly Drawing & Parts List 1/94**

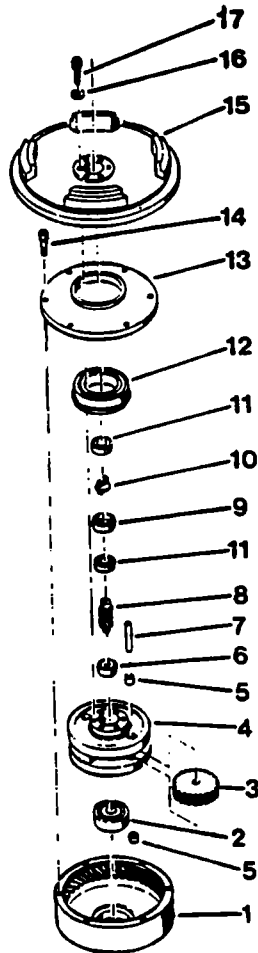
Note: If your machine has motor #44626A/44627A refer to this drawing for service part replacements.



| Ref. | Part No. | Description | Qty. |
|------|----------|-------------------------------|------|
| 1 | 611101 | Bushing | 1 |
| 2 | 447571 | Armature | 1 |
| 3 | 911866 | Centrifugal Switch 60 Hz. | 1 |
| | 418578 | Centrifugal Switch 50 Hz. | 1 |
| 4 | 448507 | Stationary Switch | 1 |
| 5 | 902550 | Ball Bearing | 2 |
| 6 | 980217 | Washer - Wave | 1 |
| 7 | 57917A | Stator - Complete | 1 |
| 8 | 412481 | Capacitor | 1 |
| 9 | 442901 | End Bell | 1 |
| 10 | 419270 | Terminal Board | 1 |
| 11 | 414870 | Insulation | 1 |
| 12 | 442305 | Capacitor Cover | 1 |
| 13 | 962727 | Screw, 8-32 x 1/2 Pn Hd. | 2 |
| | 419271 | Terminal Strip | 1 |
| 15 | 960107 | Screw, 1/4-28 x 6-3/8 Hx. Hd. | 4 |

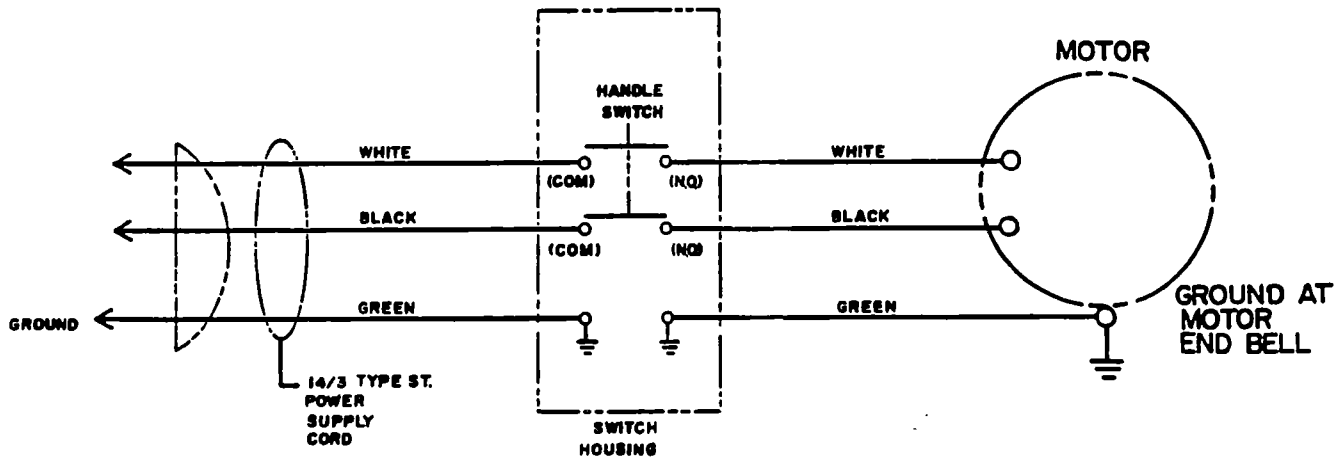
Clarke® VP-16, VP-18 & VP-20
Gearbox Assembly Drawing & Parts List 1/94

Note: If your machine has gearbox #443571 refer to this drawing for service part replacements.



| Ref. | Part No. | Description | Qty. |
|------|----------|------------------------|------|
| 1 | 444272 | Housing | 1 |
| 2 | 902573 | Bearing | 1 |
| 3 | 443572 | Gear | 2 |
| 4 | 444271 | Housing | 1 |
| 5 | 902737 | Bearing | 4 |
| 6 | 902735 | Bearing | 1 |
| 7 | 447771 | Shaft | 2 |
| 8 | 447071 | Pinion | 1 |
| 9 | 448272 | Spacer | 1 |
| 10 | 442473 | Coupling | 1 |
| 11 | 902606 | Bearing | 1 |
| 12 | 902736 | Bearing | 1 |
| 13 | 442372 | Cover | 1 |
| 14 | 962967 | Screw - Socket Hd. Cap | 6 |
| 15 | 440271 | Adapter | 1 |
| 16 | 980650 | Washer - Lock | 6 |
| 17 | 962966 | Screw 10-32 x 1-1/4 | 6 |

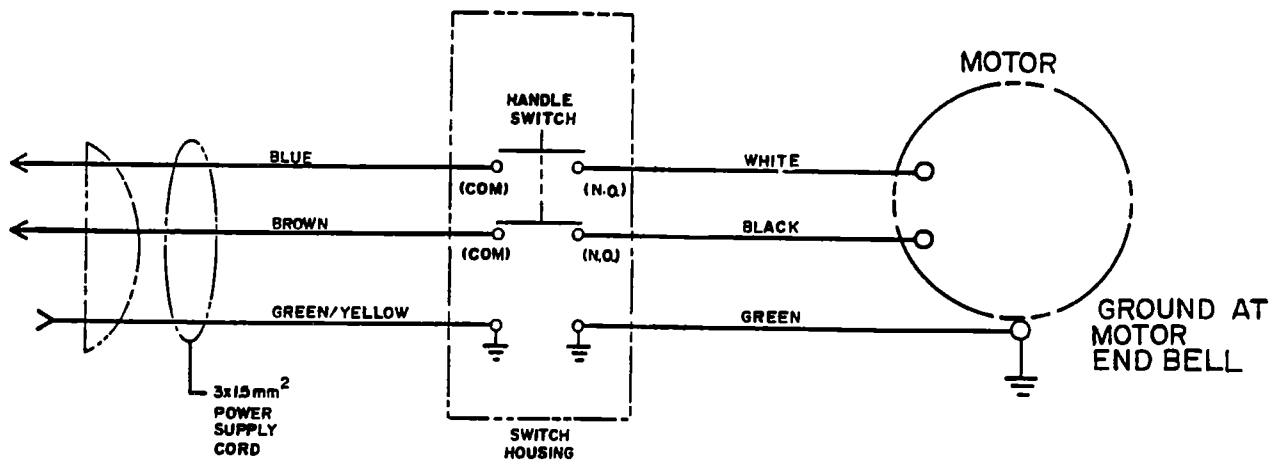
**Clarke® VP-16, VP-18 and VP-20
Wiring Diagram 120 Volt and 230 Volt
with Metal Handle - 1/94**



WARNING: All electrical repairs must be performed by qualified personnel only.

NOTE: Make sure you do not bend the push-on male terminal tabs of the switch.

**Clarke® VP-16, VP-18 and VP-20
Wiring Diagram 230 Volt
with Plastic Handle - 1/94**



WARNING: All electrical repairs must be performed by qualified personnel only.

CLARKE® PRODUCT SUPPORT BRANCHES

For parts or service contact a Clarke Authorized Service Center or a Clarke Emergency Parts Depot.

COLORADO - Denver 80211

4640 Lipan
(303) 455-2413

ILLINOIS - Elk Grove Village (Chicago) 60007

2280 Elmhurst Road
(708) 956-7900

TEXAS - Houston 77040

7215 North Gessner Road
(713) 937-7717

CANADA - Rexdale (Toronto, Ontario)

24 Constellation Ct.
(416) 675-5830

NEW JERSEY - Carlstadt 07072

150 Commerce Road
(201) 460-4774

GEORGIA - Marietta (Atlanta) 30067

American Business Center
1395 Marietta Parkway, Bldg. 200, Suite 203
(404) 427-1351/52



CLARKE - World Headquarters
St. Louis, Missouri

CLARKE - Customer Service Headquarters and Factory
2100 Highway 265
Springdale, Arkansas 72764
(501) 750-1000

Key:

- ▲ Customer Service Headquarters and Factory
- ★ World Headquarters
- Emergency Parts Depots
- Regional Office and Training Centers

Clarke® WARRANTY

This Clarke Industrial/Commercial Product is warranted to be free from defects in materials and workmanship under normal use and service for a period of one year from the date of purchase, when operated and maintained in accordance with Clarke's Maintenance and Operations Instructions.

The motor and gear unit of this product is warranted to be free from defects in materials and workmanship for an additional one year for a total of two years from the date of purchase.

This warranty is extended only to the original purchaser for use of the product. It does not cover normal wear parts such as electrical cable, rubber parts, hoses and motor brushes.

If a difficulty develops with the product, you should:

- (a). Contact the nearest authorized Clarke repair location or contact the Clarke Service Operations Department, 2100 Highway 265, Springdale, Arkansas 72764, for the nearest authorized Clarke repair location. Only these locations are authorized to make repairs to the product under this warranty.
- (b). Return the product to the nearest Clarke repair location. Transportation charges to and from the repair location must be prepaid by the purchaser.
- (c). Clarke will repair the product and/or replace any defective parts without charge within a reasonable time after receipt of the product.

Clarke's liability under this warranty is limited to repair of the product and/or replacement of parts and is given to purchaser in lieu of all other remedies, including INCIDENTAL AND CONSEQUENTIAL DAMAGES.

THERE ARE NO EXPRESS WARRANTIES OTHER THAN THOSE SPECIFIED HEREIN. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION OF THE FACE HEREOF. NO WARRANTIES, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY, SHALL BE IMPLIED. A warranty registration card is provided with your Clarke product. Return the card to assist Clarke in providing the performance you expect from your new floor machine.

Clarke, 2100 Highway 265, Springdale, Arkansas 72764

Clarke reserves the right to make changes or improvements to its machines without notice.



Always use genuine Clarke Parts for repair.



Clarke®

2100 Highway 265
Springdale, Arkansas, 72764