

# Clarke®

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# American Sanders

## RS-16 RS-16 DC

<http://www.hardwood-floor-sanders.com>

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### Operator's Manual Manual del operador Manuel de l'utilisateur



**READ THIS BOOK**  
**LEA ESTE MANUAL**  
**LISEZ CE MANUEL**

**EN** English (2 - 9)  
**ES** Español (10-17)  
**FR** Français (18-25)

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 American Sanders 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 your operator(s) cannot read this manual, have it explained fully before attempting to operate this machine.

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

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## OPERATOR SAFETY INSTRUCTIONS



WARNING



AVERTISSEMENT



ADVERTENCIA

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

-  **WARNING:** Sanding wood or varnish produces dust that could self ignite and could cause injury or damage. Dispose accordingly.
-  **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 surface 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.
-  **WARNING:** Any alterations or modifications of this machine could result in damage to the machine or injury to the operator or other bystanders. Alterations or modifications not authorized by the manufacturer voids any and all warranties and liabilities.
-  **CAUTION:** The machine is heavy. Get assistance before attempting to transport or move it.

**NOTE: This machine is intended for commercial use.**

**Machine Specifications**

<b>Model</b>	<b>RS-16 and RS-16DC</b>
Part Number	
Voltage (Volts)	120
Frequency (Hz)	60
Current (Amps)	15
Pad /Brush Speed	175 rpm
Power	1.5 hp (1.1 kW)
Gearbox	3-Planet
Pad Driver Size	16" (41 cm)
Cord Length	50' (15 m)
Height w/handle	46" (117 cm)
Weight w/cord	91 lbs. (41.1 kg)
Handle Tube	Tubular Steel
Main Frame	Die Cast Alum.

**HOW TO PREPARE THE MACHINE FOR OPERATION**

**UNCRATE THE MACHINE**

When the machine is delivered, carefully inspect the shipping carton and the machine for damage. If damage is evident, save the shipping carton so that it can be inspected. Contact the Clarke Customer Service Department.

**KNOW YOUR MACHINE (Figure 1)**

- 1 Operator Handle Grips
- 2 Switch Lever Safety Lock Button
- 3 Switch Levers - Squeeze - ON / Release - OFF
- 4 Handle Release Compression Lever
- 5 Power Cord
- 6 Operator Handle
- 7 Cord Hook
- 8 Skirt (RS-16 DC)

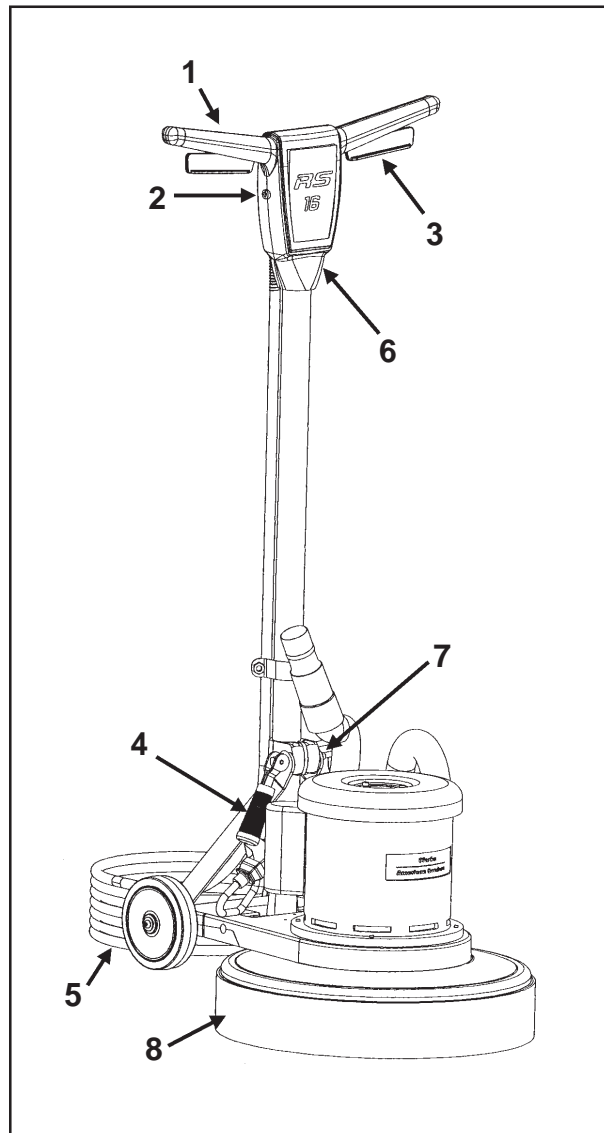
**⚠ WARNING!** This machine contains moving parts. To reduce the risk of injury, always unplug the power cord before servicing.

**INSTALLING THE PAD DRIVER**

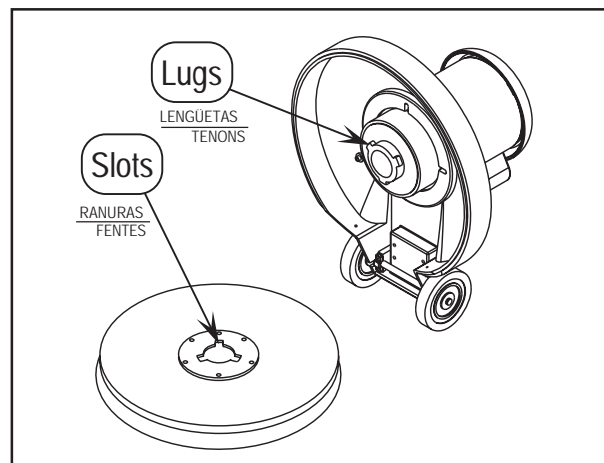
1. Align the lugs with the corresponding slots in the pad driver and turn the pad driver counterclockwise to lock it in place (figure 2). To remove pad driver, give it a quick hard turn clockwise.

**⚠ CAUTION!** Using the wrong pad on this machine can overload the motor.

2. Install skirt (RS-16 DC) as shown in figure 1, item 8; stiffening the strip down.



**Figure 1**



**Figure 2**

## GROUNDING INSTRUCTIONS

### 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. 4. 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.**

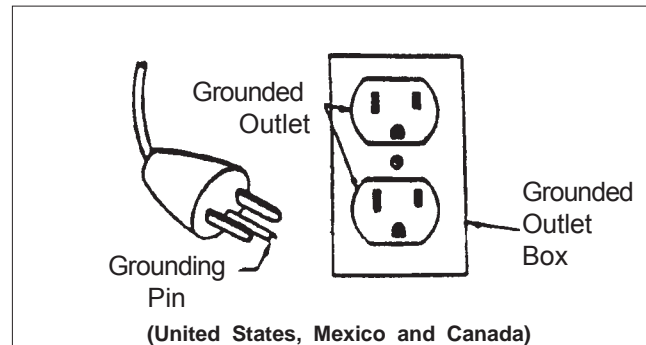


Figure 3

**HOW TO OPERATE THE MACHINE**

**OPERATION (Figure 4)**

- 1 Unwrap the Power Cord (5) and plug it into a properly grounded outlet.
- 2 Pull up on the Handle Release Compression Lever (4). Move the Operator Handle (6) downward until your arms are almost straight. Push down on the Handle Release Compression Lever (4) to lock it in place.
- 3 Lift up on the Operator Handle (6) until the brush (or pad) is flat against the floor.

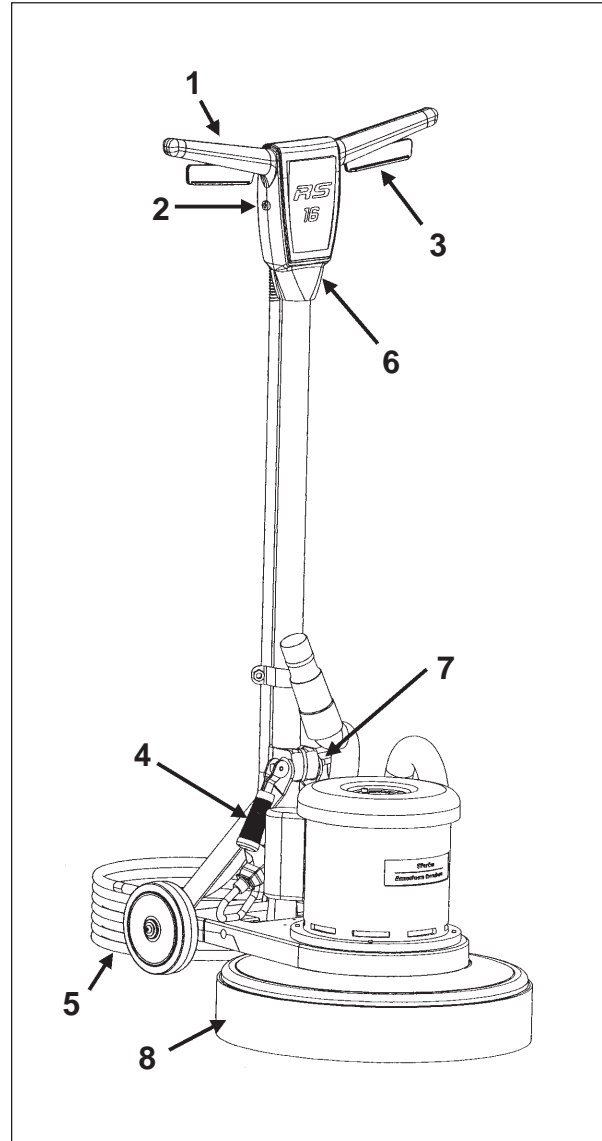
**⚠ WARNING!** Be prepared to control the machine as soon as the motor starts. Just a slight up or down movement of the Handle will make the machine move from side to side. Raise the Handle to go right. Lower the Handle to go left.

**⚠ CAUTION!** Immediately start moving the machine back and forth. Keep the machine moving while the motor is running to avoid damage to the floor.

- 4 Hold one of the Operator Hand Grips (1) firmly, push the Safety Lock Button (2) and then compress the Switch Levers (3) to start the motor. NOTE: When the Switch Levers (3) are released, the machine shuts off immediately.

**AFTER USE (Figure 4)**

- 1 Place the Operator Handle (6) in the upright position and unplug the Power Cord (5). Wrap the Power Cord (5) around the Operator Handle Grips (1) and the Cord Hook (7).
- 2 Remove the pad driver from the machine. Never store the machine with the pad driver on the machine.
- 3 Wipe the entire machine with a clean, damp cloth.
- 4 Inspect the entire machine and all accessories for damage. Perform any required maintenance or repairs before storage.
- 5 Store the machine in a clean, dry place with the Operator Handle (6) locked in the upright position.



**Figure 4**



**TROUBLESHOOTING****MACHINE WOBBLING DURING OPERATION**

- Defective pad... one side is more dense than the other.
- Machine left sitting on pad for extended period of time causing pad to “take a set”.
- Pad not “seated” properly into pad holder bristles.
- Warped block on brush or padholder - replace.

**MACHINE DOES NOT RUN**

- Check plug for proper connection - on machine and at wall outlet.
- Check building circuit breaker.
- Call for service.

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# **American Sanders**

## **RS-16**

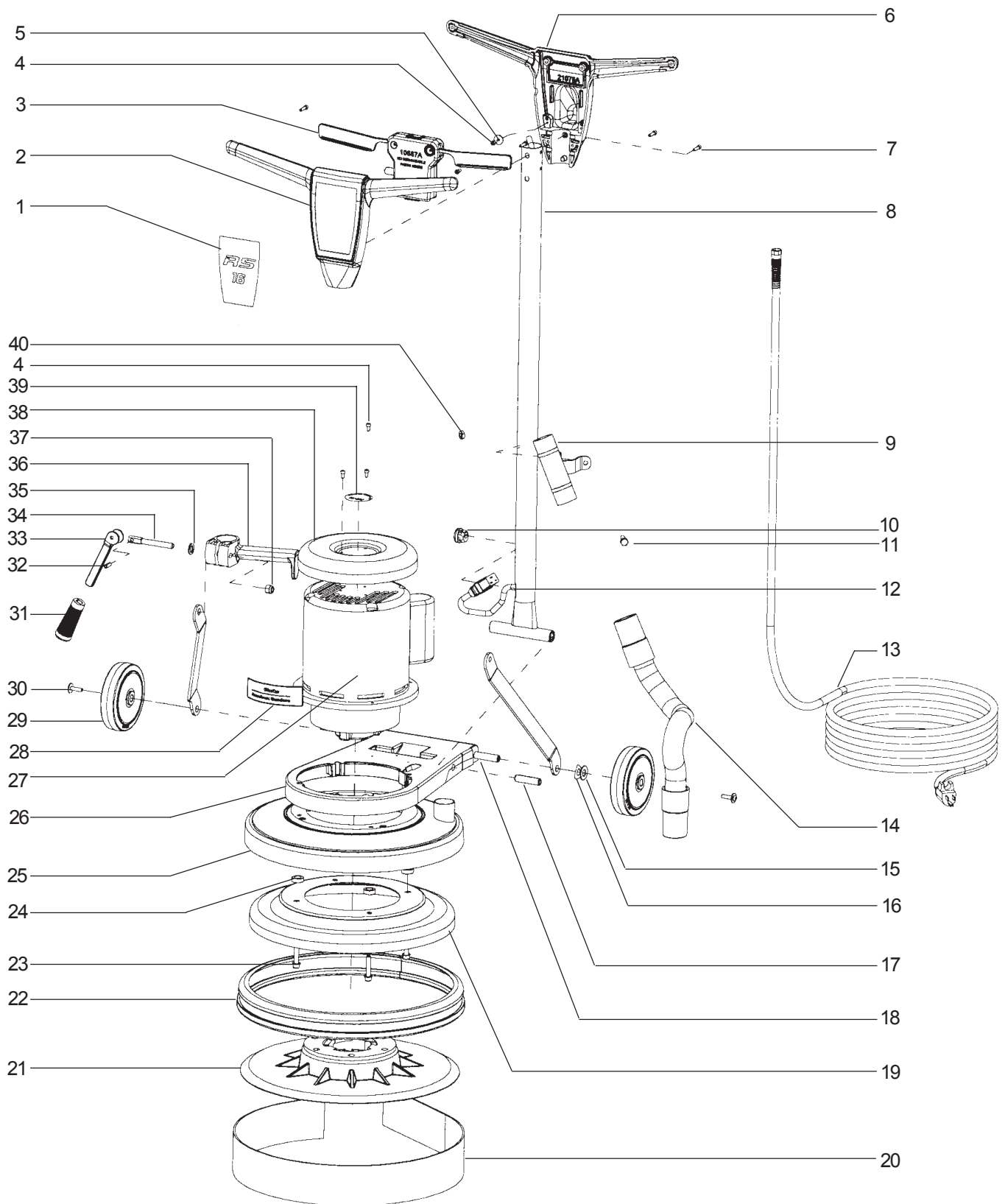
## **RS-16 DC**

### **Section II**

## **Parts and Service Manual**

(71121A)

**Clarke®**  
**American Sanders**  
**RS-16, RS-16DC**  
**Assembly Drawing 1/06**



**Clarke®**  
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**RS-16, RS-16 DC**  
**Assembly Drawing Parts List 1/06**

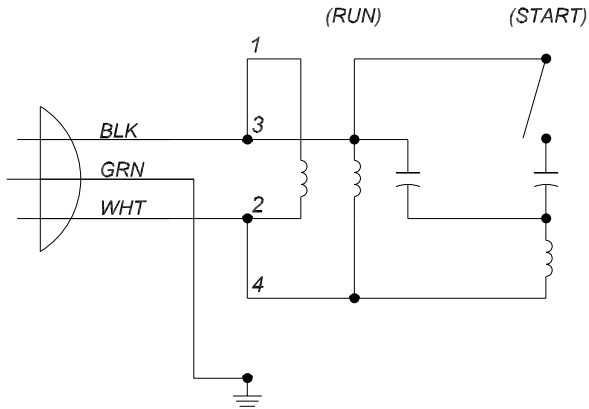
Ref.	Part No.	Description		
			RS-16	RS-16 DC
Qty.	Qty.			
1	71119A	Label	1	1
2	21074A	Handle Front	1	1
3	10687A	Module	1	1
4	80290A	Screw, 10-32 x 3/8	4	4
5	80291A	Washer, #10	1	1
6	21075A	Handle Back	1	1
7	80284A	Screw, 10-32 x 3/4	6	6
8	61373A	Handle Tube	1	1
9	10304A	Adaptor	-	1
10	85815A	Screw, 5/16 x 1 1/4	-	1
11	Ref.*	Bushing (Equipped with 40789A)	1	1
12	40789A*	Cord Interconnect	1	1
13	40919A	Cord, Power	1	1
14	30407B	Hose, Squeegee	-	1
15	980648	Washer, 1/2	2	2
16	80295A	Washer, Bowed	2	2
17	53833A	Pin, 1/2	2	2
18	61725A	Axle	1	1
19	61832A	Shield, Inner	-	1
20	30725A	Skirt	-	1
21	10242A	Pad Driver	1	1
NI	460215	Hard Plate (Option 1)	1	1
22	30381A	Bumper	1	1
23	80294A	Screw, 5/16	4	-
	80305A	Screw, 5/16 x 2	-	4
24	67890A	Spacer, 7/8 x 9/16 x 5/16	-	4
25	61826A	Shield (with connector)	-	1
	61715A	Shield	1	-
26	21088A	Main Frame	1	1
27	53650A	Motor	1	1
28	70499A	Label	1	1
29	39857A	Wheel	2	2
30	80292A	Screw, 1/4-20 x 1	2	2
31	56057675	Grip Handle	1	1
32	53662A	Pin, 1/4	1	1
33	461404	Cam, Locking	1	1
34	441301	Bolt, Locking Cam	1	1
35	980341	Washer	1	1
36	50781A	Clamp	1	1
37	920342	Nut, 3/8	1	1
38	61716A	Cover	1	1
39	71120A	Label	1	1
40	920110	Nut, 5/16	-	1

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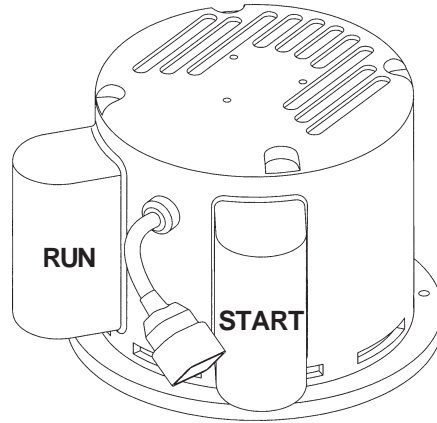
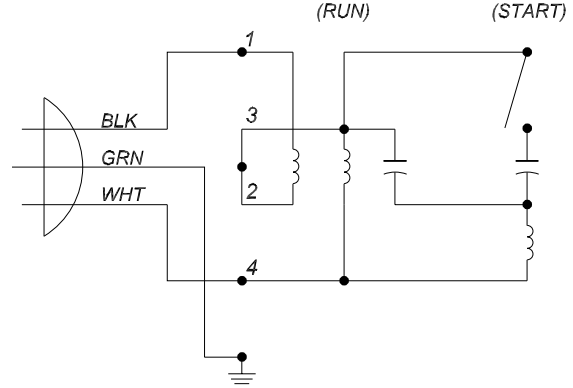
**RS-16, RS-16DC**

**Motor Assembly Drawing, Parts List and Schematics 1/06**

*ELECTRICAL SCHEMATIC  
(120V)*



*ELECTRICAL SCHEMATIC  
(230V)*

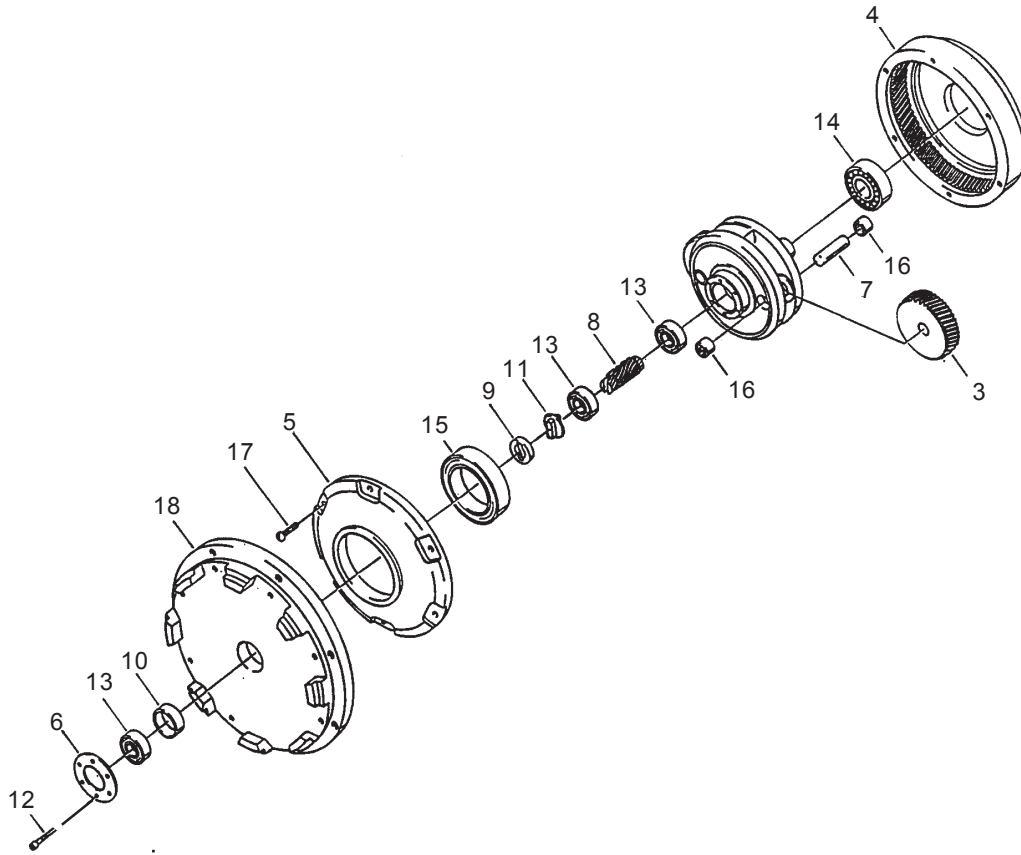


<b>VOLTS / Hz</b>		<b>120 / 60</b>
<b>MOTOR PART NUMBER</b>		<b>40763A</b>
<b>Part No.</b>	<b>Description</b>	<b>Qty</b>
53193A	Rotor, 1.5HP, 60Hz	1
40694A	Capacitor, Start	1
53191A	Capacitor, Run	1
53189A	Stator, 1.5HP, 60Hz	1
53360A	Cover, Capacitor	2
40699A	Cover, Wiring	2
53190A	Switch, Start	2
53195A	Centrifugal 4-Pole 60Hz	2
70787A	Label, Connection	2
85303A	Screw, 8-32 x 3/8	11
902550	Bearing, Ball-6203	1
53848A	Plate, Mounting	1
80141A	Screw, 10-32 x 1	6
911177	Wire Nut - Orange	2
40698A	Endbell	1

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**RS-16, RS-16 DC**

**Gearbox Assembly Drawing & Parts List 1/06**



VOLTS / Hz			120 / 60
GEARBOX PARTNUMBER			53646A
Ref.	Part No.	Description	Qty
NI	503802	Grease - 14 Ounce Tube	(1)
3	54408A	Gear, Planet	3
4	54856A	Gear, Ring	1
5	54858A	Cover, Gearbox	1
6	56922A	Retainer, Bearing	1
7	58312A	Shaft, Planet	3
8	58313A	Gear, Pinon	1
9	58314A	Retainer, Shaft	1
10	58520A	Spacer, Sleeve	1
11	69195A	Coupling, Shaft	1
12	80141A	Screw, 10-32 x 1	6
13	902606	Bearing, Ball- 6002	3
14	902654	Bearing, Ball- 6204	1
15	902736	Bearing, Ball- 6010	1
16	902737	Bearing, Needle	6
17	84808A	Screw, 10-24 x 3/4	6
18	53848A	Plate, Mounting	1

**NOTE: Use 9 ounces of grease in Gearbox 53645A and 8 ounces of grease in Gearbox 53646A**

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RS-16, RS-16 DC  
Machine Schematic 1/06

