



Electronic Service Manuals

This electronic document is provided as a service to our customers. We do not create the contents of the information contained in this document. Should you have detailed questions pertaining to the information contained in this document, you may contact Michco, or the manufacturer which provided the original information in this electronic deliverable. Michco's only part in this electronic deliverable was the electronic assembly process. By providing this manual on line we are not guaranteeing parts availability.

You may contact Michco through the following methods:

Phone (517) 484-9312 or (800) 331-3339

2011 N. High St. -- Lansing, Michigan -- 48906

Fax: (517) 484-9836

Email: CustServe@Michco.com

Web site: www.Michco.Com

Parts Web site: www.FloorMachineParts.Com

Order Parts on Line at:

www.FloorMachineParts.Com

Directly to Parts & Service:

By Email: **Shop@Michco.com**

By Fax: (517) 702-2041

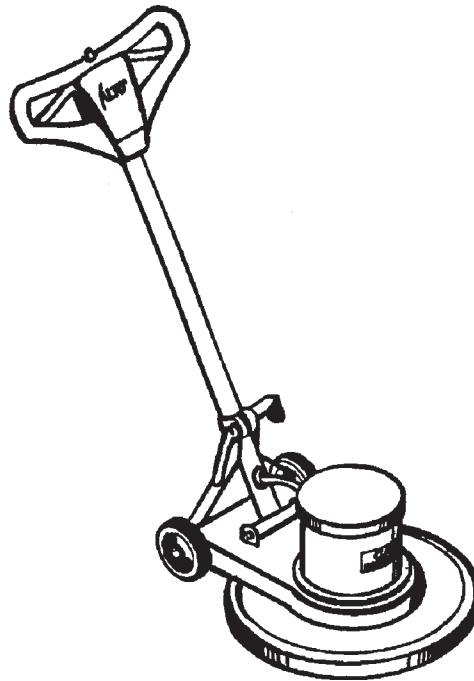
By Voice: Use numbers above.

Serving the Cleaning Industry Since 1922

Notice: All copyrighted material remains property of original owners, all trademarks are property of respective owners. Manuals are subject to Manufacturer's reproduction limitations. Originals or reproductions were provided by manufacturers through a request. We make no warranty as to the correctness of information provided in this document and you assume all risk. By placing these manuals on line we are not declaring our corporation to be an manufacturer authorized dealer or provider, please check our web site for authorized manufacturers we represent.



Operator's Manual



**C2K Series
230V 50Hz
Polisher
UK**

READ THIS BOOK

⚠ CAUTION: Read the Operator's Manual before using the appliance.

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 ALTO 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 cannot read English, have this manual 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.

For new books write to: ALTO U. S. Inc., 2100 Highway 265, Springdale, Arkansas 72764.

CONTENTS OF THIS BOOK

Operator Safety Instructions	3
Machine Introduction	4
Accessories	5
Machine Specifications	6
How To Prepare the Machine for Operation	7
How to Install the Brush or Pad Driver	7
How to Adjust the Handle	7
Instructions for Connection to Power Supply & Elect. Ground, 230 V	8
How to Operate the Machine	9
How To Start/Stop The Machine	9
How to Control the Machine	9
Maintenance	9

Section II Parts and Service Manual

Maintenance	12
Assembly Drawing	14
Assembly Parts List	15
Assembly Drawing	16
Assembly Parts List	17
Motor Assembly Drawing & Parts List	18
Gearbox Assembly Drawing & Parts List	19
Motor Assembly Drawing & Parts List	20
Gearbox Assembly Drawing & Parts List	21
Motor Assembly Drawing and Parts List	22
Gearbox Assembly Drawing and Parts List	23
Wiring Diagrams	24

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 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. Do not use with flammable liquids.



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 supply cord could result in an electrocution. Regularly examine the power supply cord for damage, such as cracking or ageing. Do not use the machine if the power supply cord is damaged. Only replace the power supply cord with the type specified in the instruction manual.



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: This appliance is for dry use only and is not to be used or stored outdoors in wet conditions.



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. Only use the socket outlet on the appliance for purposes specified in the instruction manual.



WARNING: To prevent damage to the power supply cord, do not let the brush, pad, pad driver or wheels touch the power supply cord when the machine is running. Always lift the cord over the machine. Do not pull the power supply 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 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:**

Water solutions or cleaning materials used with this type of machine can leave wet areas on the floor surface. These areas can cause a dangerous condition for the operator or other persons. Always put CAUTION signs near the area being cleaned.

**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.

**CAUTION:**

This appliance is not suitable for picking up hazardous dust.

MACHINE INTRODUCTION

The CLARKE TECHNOLOGY C2K Series

The ALTO C2K Series 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 and with the sanding disc they can be used to sand floors.

This appliance is suitable for commercial use, for example in hotels, schools, hospitals, factories, shops, offices and rental businesses.

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 for concrete.
4. Synthetic pad holders.
5. Synthetic pads for polishing, scrubbing, stripping and spray buffing.
6. Brushes with metal or wood backs and with holes to let the solution flow through.
7. Solution tank.
8. Sanding discs for wood floors.
9. Spray Buff Accessory.
10. Grinding disk for concrete.

Model	C2K -	16	18	160	180	200	1600	1800
Code Number		01221A	01222A	01223A	01224A	01225A	01226A	01227A
Solution Tank Assembly		50026A	50026A	50026A	50026A	50026A	50026A	50026A
Spray Buff Attachment								
Weight Kit		-----	-----	-----	-----	-----	10086A	10086A
Polypropylene Scrub Brush		51704A	51706A	51704A	51706A	51707A	51704A	51706A
High Speed Pad Driver								
Perma Grip Pad Driver		53159A	53157A	53159A	53157A	53156A	53159A	53157A
Super Grip Drive Pad		37007A	37009A	37007A	37009A	37011A	37007A	37009A
Standard Pad Driver		50864A	50865A	50864A	50865A	50866A	50864A	50865A
Sanding Disc Driver (Wood)		-----	-----	-----	-----	-----	450214	460215
Abrasive Coated Tynex		-----	-----	51443A	51445A	51446A	51443A	51445A
Steel Wire Brush (Concrete)		410963	410984	410963	410984	480924	410963	410984
Capture (Carpet) Scrub Brush		-----	-----	-----	-----	-----	-----	11405A
Nylon Brush (Carpet)		-----	-----	-----	-----	-----	51498A	51701A
Grinding Disk Assembly		-----	-----	-----	-----	-----	450212	500212
Dust Skirt		10087A	10088A	10087A	10088A	10089A	10087A	10088A

Model	C2K -	2000	1600HS	1800HS	2000HS	1600DS	2000DS	1800HSV
Code Number		01228A	01229B	01230B	01231B	01232B	01233B	09234B
Solution Tank Assembly		50026A	50026A	50026A	50026A	50026A	50026A	-----
Spray Buff Attachment		-----	440570	440570	440570	440570	440570	-----
Weight Kit		10086A	-----	-----	-----	10086A	10086A	-----
Polypropylene Scrub Brush		51707A	51704A	51706A	51707A	51704A	51707A	51706A
High Speed Pad Driver		-----	53154A	53153A	17518A	53154A	17518A	53153A
Perma Grip Pad Driver		53156A	53159A	53157A	53156A	53159A	53156A	52157A
Super Grip Drive Pad		37011A	37007A	37009A	37011A	37007A	37011A	37009A
Standard Pad Driver		50866A	50864A	50865A	50866A	50864A	50866A	50865A
Sanding Disc Driver (Wood)		-----	-----	-----	-----	-----	-----	-----
Abrasive Coated Tynex		51446A	-----	-----	-----	-----	-----	-----
Steel Wire Brush (Concrete)		480924	-----	-----	-----	-----	-----	-----
Capture (Carpet) Scrub Brush		11406A	-----	-----	-----	-----	-----	-----
Nylon Brush (Carpet)		-----	-----	-----	-----	51498A	-----	-----
Grinding Disk Assembly		-----	-----	-----	-----	-----	-----	-----
Dust Skirt		10089A	10087A	10088A	10089A	10087A	10089A	10088A

⚠ WARNING: Use only brushes and accessories supplied by the manufacturer. The use of other brushes and accessories may impair safety. Large diameter brushes provided specifically for dry buffing are not intended for general polishing.

Machine Specifications

Model	C2K-	16	18	160	180	200
Code Number		01221A	01222A	01223A	01224A	01225A
Voltage (V)		230	230	230	230	230
Frequency (Hz)		50	50	50	50	50
Current (A)		8	8	8	8	8
Power (kW)		0.56	0.56	0.75	0.75	0.75
Brush Diameter (cm)		41	46	41	46	51
Block Diameter (cm)		36	41	41	46	51
Brush Speed (rpm)		204	204	204	204	204
Cord Length (m)		15	15	15	15	15
Weight (kg)		40	40	40	40	40
Noise (dBA)		<70	<70	<70	<70	<70
Vibration (m/s ²)		<2.5	<2.5	<2.5	<2.5	<2.5

Model	C2K-	1600HS	1800HS	2000HS	1800HSV
Code Number		01229B	01230B	01231B	09234B
Voltage (V)		230	230	230	230
Frequency (Hz)		50	50	50	50
Current (A)		8	8	8	9
Power (kW)		1.1	1.1	1.1	1.1
Brush Diameter (cm)		41	46	51	46
Block Diameter (cm)		36	41	36	41
Brush Speed (rpm)		407	407	407	407
Cord Length (m)		15	15	15	15
Weight (kg)		42	42	42	44
Noise (dBA)		<70	<70	<70	<70
Vibration (m/s ²)		<2.5	<2.5	<2.5	<2.5

Model	C2K-	1600	1800	2000	1600DS	2000DS
Code Number		01226A	01227A	01228A	01232B	01233B
Voltage (V)		230	230	230	230	230
Frequency (Hz)		50	50	50	50	50
Current (A)		8	8	8	8	8
Power (kW)		1.1	1.1	1.1	1.1	1.1
Brush Diameter (cm)		41	46	51	41	51
Block Diameter (cm)		36	41	46	36	46
Brush Speed (rpm)		204	204	204	180/320	180/320
Cord Length (m)			15	15	15	15 15
Weight (kg)		42	42	42	43	43
Noise (dBA)		<70	<70	<70	<70	<70
Vibration (m/s ²)		<2.5	<2.5	<2.5	<2.5	<2.5

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. See figure 1.
3. Tilt the machine backward until the handle is on the floor. See figure 2.
4. Put one foot on each side of the machine. See figure 2.
5. Align the lugs (1) on the locking plate into the pad driver adapter openings (2). See figure 3.
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 1.
2. Lower the handle to the best operating position.

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

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

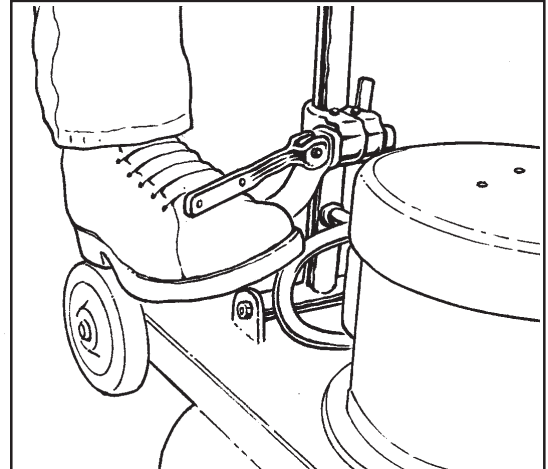


Figure 1

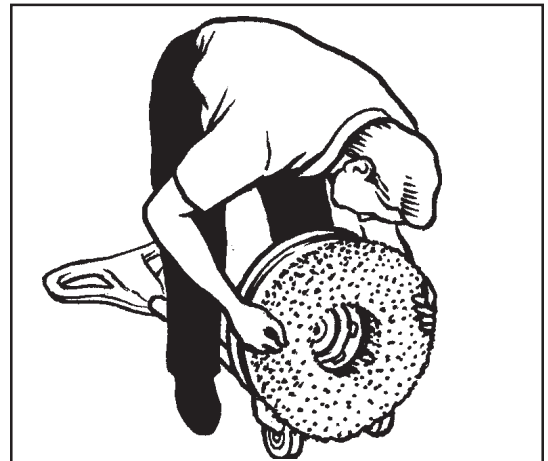


Figure 2

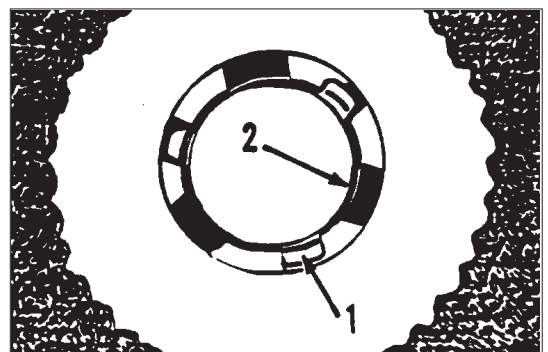


Figure 3

1. The lugs.
2. The drive adapter openings.

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 4. 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.

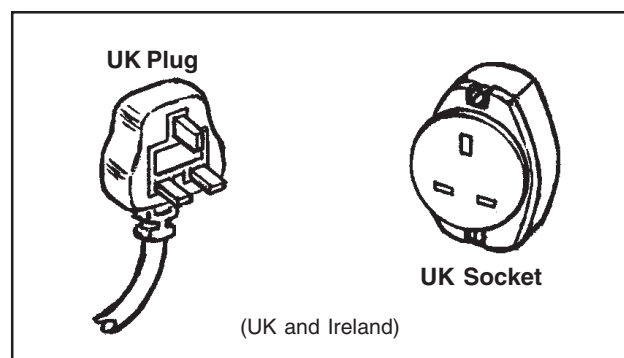


Figure 4

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.

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 following step applies to the C2K-1600DS and C2K-2000DS only: Select high or low speed with the switch located on the motor cover. Moving the switch lever up selects high speed. Moving the switch lever down selects low speed.

The following steps apply to all C2K series:

The switch to start and stop the machine is activated by the interlock button (1) and the levers (2) under the handle grips. See figure 5.

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 button (1), and apply pressure to the levers (2). See figure 5.

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.

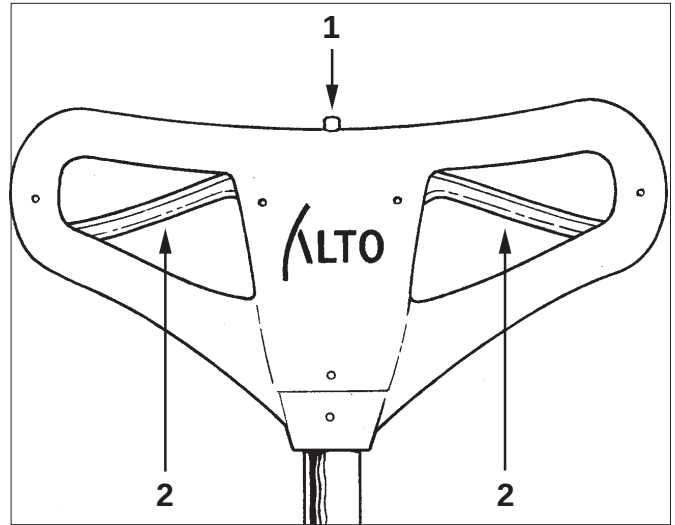


Figure 5

MAINTENANCE

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

Maintenance Instructions

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

[illegible]



C2K Series
230V
Section II
Parts and Service Manual

(70199A)

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 Technology 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 Technology Service Branch or a Clarke Technology Authorized Service Center for electrical repairs or testing.

Maintenance Of The Motor

Induction type motors do not require motor brushes. C2K-1600DS and C2K-2000DS require motor brushes.

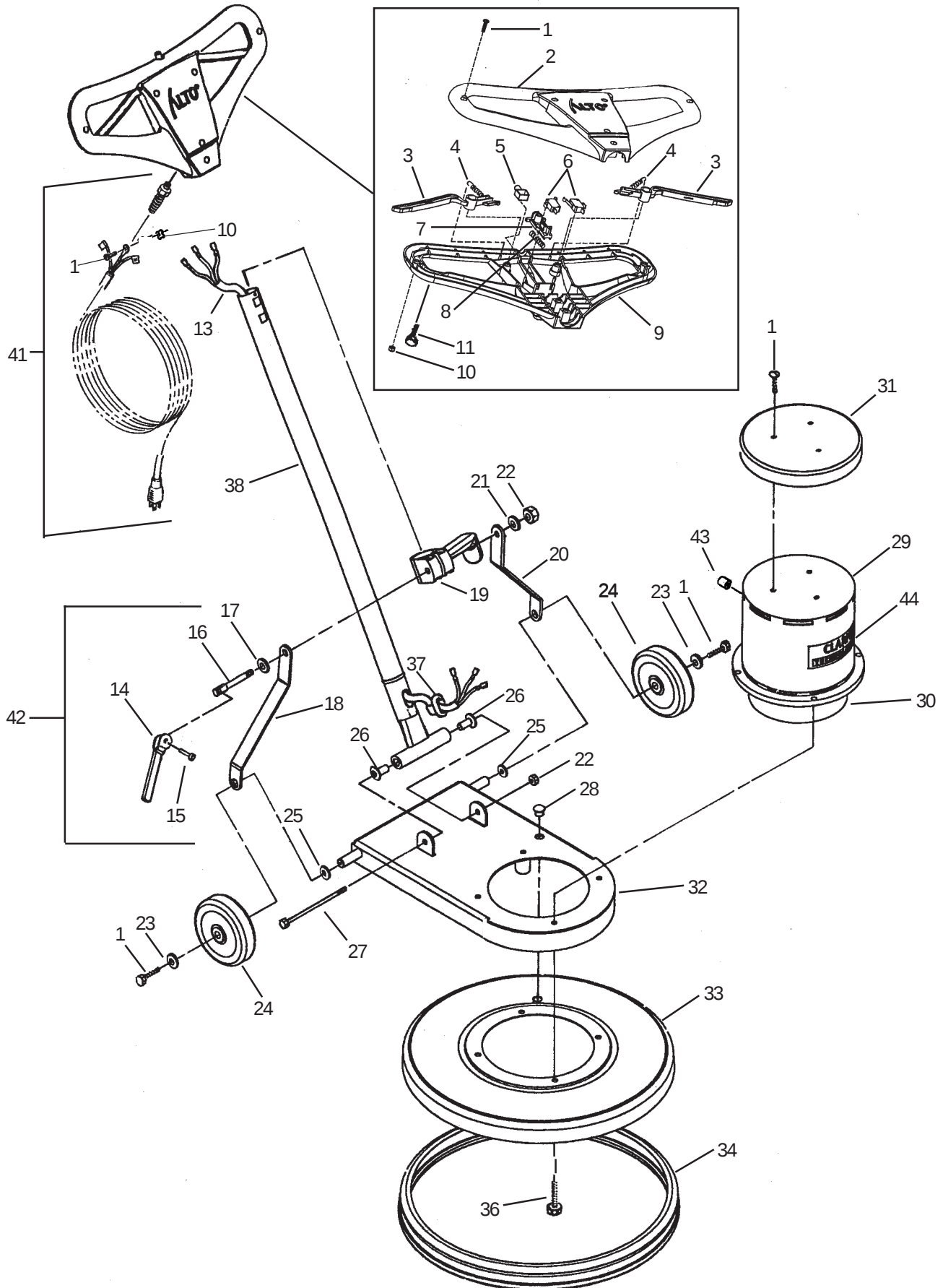
If repairs to the gear unit or motor are needed, do not disassemble the gears and motor. Return the machine to the nearest Clarke Technology Service Branch or Clarke Technology Authorized Service Center.

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

NOTE: The grease (503802) for the gear box needs to be changed every year. The C2K-1600, C2K-1600DS C2K-1600HS, C2K-1800, C2K 1800HS, C2K-2000, C2K-2000DS, C2K-2000HS require 8 oz. of grease. All other C2K series require 9 oz. of grease.

[illegible]

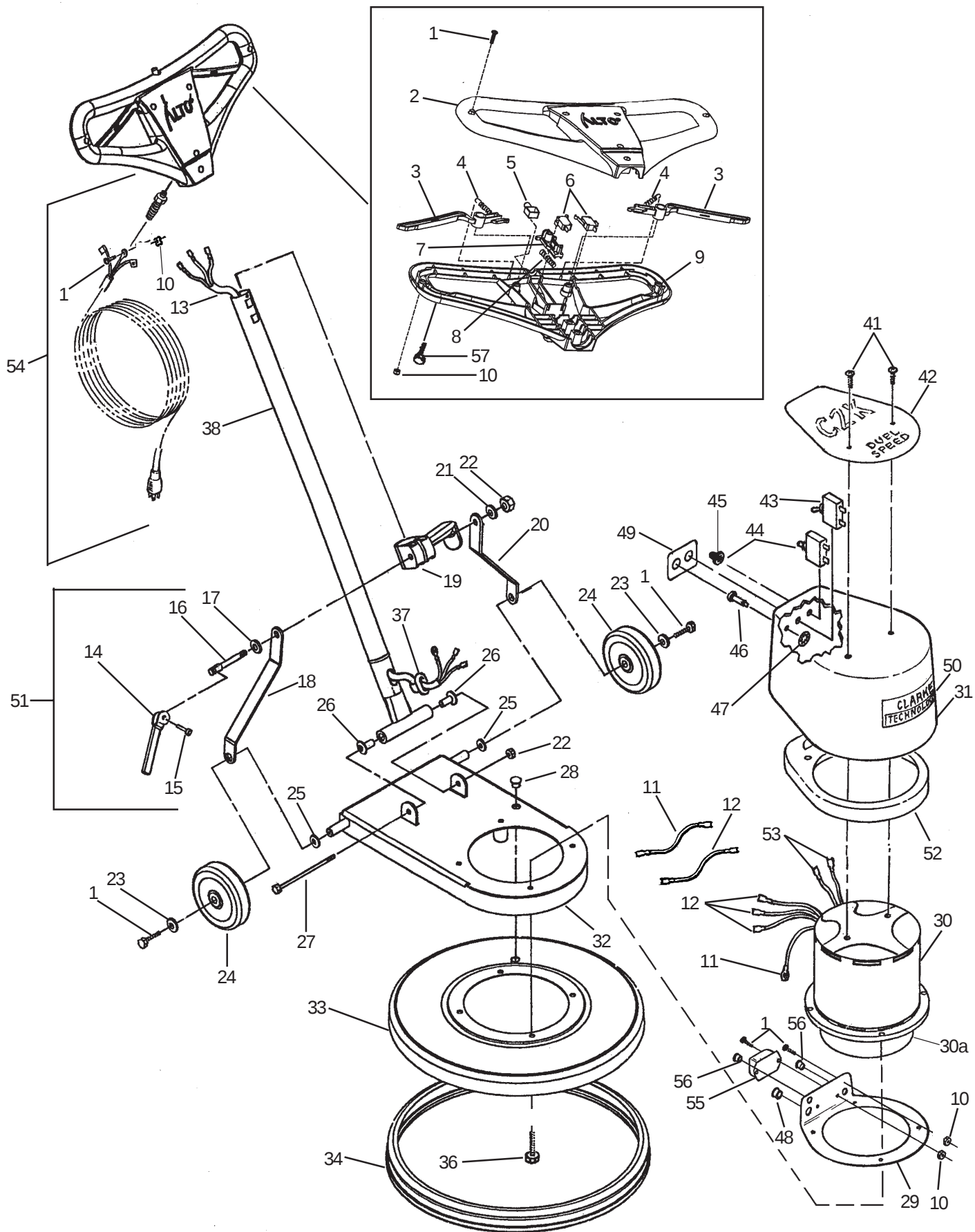
CLARKE TECHNOLOGY
C2K-16, C2K-18, C2K-160, C2K-180, C2K-200,
C2K-1600, C2K-1800, C2K-2000, C2K-160HS, C2K-180HS, C2K-200HS
Assembly Drawing 2/01



CLARKE TECHNOLOGY
C2K-16, C2K-18, C2K-160, C2K-180, C2K-200,
C2K-1600, C2K-1800, C2K-2000, C2K-1600HS, C2K-1800HS, C2K-2000HS
Assembly Drawing Parts List 2/01

Ref.	Part No.	Description	Qty.
1	85383A	Screw, 10-32 x 3/4	12
2	50779A	Handle, Front	1
3	50798A	Lever, Switch	2
4	50820A	Spring, Extension	2
5	50806A	Button, Interlock	1
6	40109A	Switch	2
7	50799A	Interlock, Main	1
8	50821A	Spring, Compression	1
9	50780A	Handle, Rear	1
10	920722	Nut, 10-3 ESNA	7
11	962957	Screw	2
13	50871A	Cord, Interconnect	1
14	461404	Cam, Locking (included w/42)	1
15	925592	Roll Pin, 1/4 (included w/42)	1
16	441301	Bolt, Locking Cam (included w/42)	1
17	980349	Washer, Wear Cam	1
18	50791A	Arm Link, RH	1
19	50781A	Clamp, Handle	1
20	50792A	Arm Link, LH	1
21	980645	Washer, Flat 3/8	1
22	920342	Nut, 3/8 -16 ESNA	2
23	87035A	Washer, Fender #10 SS	2
24	50793A	Wheel, 5"	2
25	87050A	Washer, 5/8 Nylon	2
26	50794A	Bushing, Nylon	2
27	80087A	Screw, 3/8 -16 x 6	1
28	57120A	Plug, Button	1
29	50993A	Motor (16, 18)	1
	44638A	Motor (160, 180, 200)	1
	50879A	Motor (1600, 1800, 2000)	1
30	50880A	Motor (1600HS, 1800HS, 2000HS)	1
	50872A	Gearbox (16, 18, 160, 180, 200)	1
	50881A	Gearbox (1600, 1800, 2000)	1
	51344A	Gearbox (1600HS, 1800HS, 2000HS, 1800HSV)	1
31	50822A	Cover, Motor (16, 18, 160, 180, 200)	1
	50823A	Cover, Motor (1600, 1800, 2000, 1600HS, 1800HS, 2000HS)	1
32	50790A	Frame, Main	1
33	50785A	Shield, Brush (16, 160, 1600)	1
	50786A	Shield, Brush (18, 180, 1800)	1
	50787A	Shield, Brush (200, 2000)	1
	51218A	Shield (1800HSV)	1
	50782A	Bumper, (16, 160, 1600)	1
34	50783A	Bumper, (18, 180, 1800)	1
	50784A	Bumper, (200, 2000)	1
36	80098A	Screw, 5/16-18 x 2 1/8	4
37	50796A	Bushing, Cord	1
38	50795A	Tube, Handle	1
41	50870A	Cord Assembly	1
42	441401	Cam Assembly (includes 14,15, 16)	(1)
43	747553	Strain Relief	1
44	77378A	Label	1
NI	82100A	Locknut	1

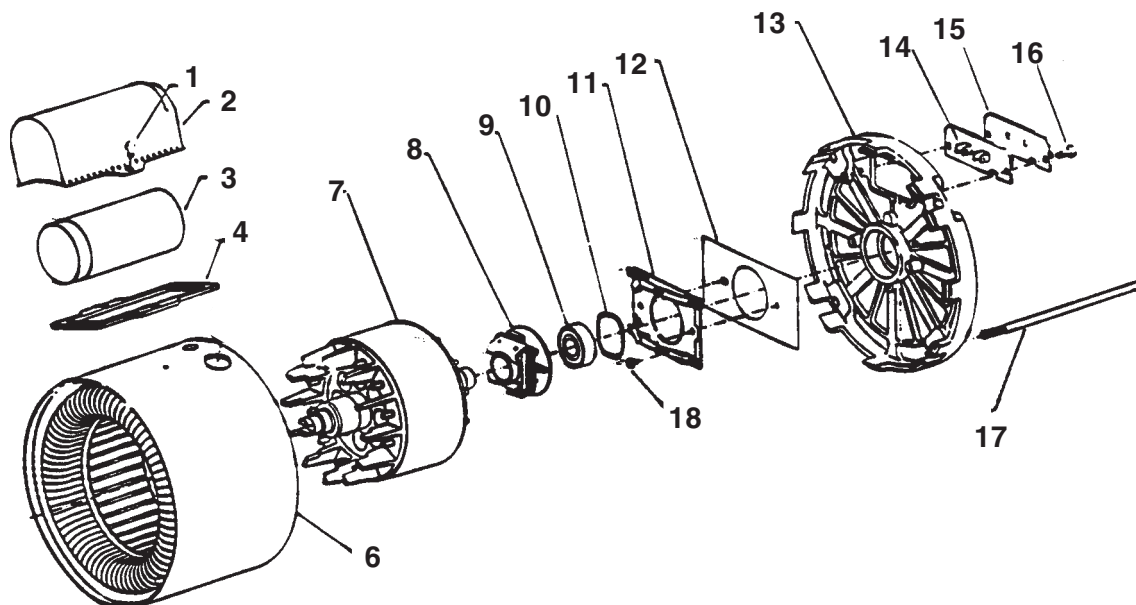
CLARKE TECHNOLOGY
C2K-1600DS and C2K-2000DS
Assembly Drawing 2/01



CLARKE TECHNOLOGY
C2K-1600DS and C2K-2000DS
Assembly Parts List 2/01

Ref.	Part No.	Description	Qty.
1	85383A	Screw, 10-32 x 3/4	12
2	50779A	Handle, Front	1
3	50798A	Lever, Switch	2
4	50820A	Spring, Extension	2
5	50806A	Button, Interlock	1
6	40109A	Switch	2
7	50799A	Interlock, Main	1
8	50821A	Spring, Compression	1
9	50780A	Handle, Rear	1
10	920722	Nut, 10-32 ESNA	10
11	40139A	Blue Wire Assembly	1
12	40140A	Brown Wire Assembly	1
13	50875A	Cord, Interconnect	1
14	461404	Cam, Locking (included w/51)	1
15	925592	Roll Pin, 1/4 (included w/51)	1
16	441301	Bolt, Locking Cam (included w/51)	1
17	980349	Washer, Wear Cam	1
18	50791A	Arm Link, RH	1
19	50781A	Clamp, Handle	1
20	50792A	Arm Link, LH	1
21	980645	Washer, Flat 3/8	1
22	920248	Nut, 3/8 -16 ESNA	2
23	87035A	Washer, Fender #10 SS	2
24	50793A	Wheel, 5"	2
25	87050A	Washer, 5/8 Nylon	2
26	50794A	Bushing, Nylon	2
27	80087A	Screw, 3/8 -16 x 6	1
28	57120A	Plug, Button	1
29	50825A	Bracket	1
30	51342A	Motor/Gearbox (includes #30a)	1
30a	51343A	Gearbox (included w/#30)	(1)
31	50824A	Cover, Motor	1
32	50790A	Frame, Main	1
33	50785A	Shield, Brush (1600)	1
	50787A	Shield, Brush (2000)	1
34	50782A	Bumper, (1600)	1
	50784A	Bumper, (2000)	1
36	80098A	Screw, 5/16-18 x 2 1/8	4
37	50796A	Bushing, Cord	1
38	50795A	Tube, Handle	1
41	85517A	Screw	2
42	70151A	Label	1
43	50877A	Switch	1
44	51345A	Circuit Breaker (Includes #45)	1
45	751321	Boot (included w/#44)	(1)
46	34261A	Light	1
47	80201A	Clip	1
48	747553	Strain Relief	1
49	70218A	Label, (High - Low)	1
50	77378A	Label	1
51	441401	Cam Asm (includes 14,15,16)	(1)
52	30605A	Baffle	1
54	50870A	Cord Asm. (w/ strain Relief)	1
55	47201A	Filter	1
56	98458A	Bushing	2
57	962957	Screw	2
NI	82100A	Locknut	1
NI	51058A	Baffle	1

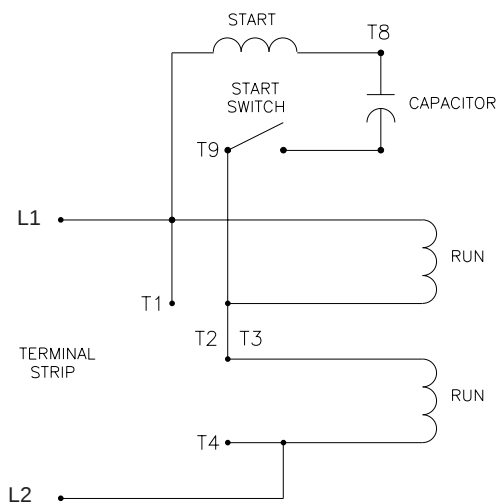
CLARKETECHNOLOGY
C2K-16, C2K-18, C2K-160, C2K-180 and C2K-200
230V - 50 Hz Motor Assembly Drawing & Parts List 2/01
Note: If your machine has motor #44638A refer to this
drawing for service part replacement.



Ref.	Part No.	Description	Qty.
1	58030A	Screw #10-32 x .31	2
2	52018A	Capacitor Case	1
3	52019A	Start Capacitor	1
4	54330A	Gasket, Capacitor Case	1
6	53976A	Stator Frame Asm	1
7	50400A	Rotor and Shaft Assembly	1
8	56461A	Centrifugal Switch Asm. (50 Hz)	1
9	902550	Bearing	1

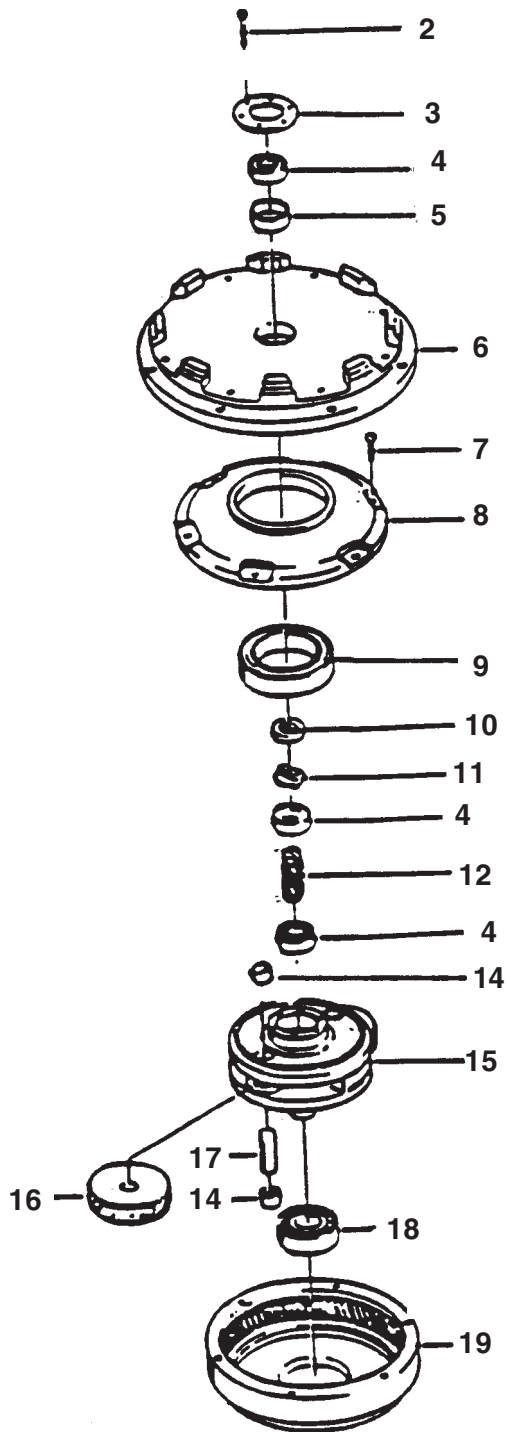
Ref.	Part No.	Description	Qty.
10	58673A	Washer	1
11	58032A	Stationary Switch	1
12	54713A	Stationary Switch Insulation	1
13	53523A	Bracket Opp. Shaft End	1
14	58911A	Terminal Board Asm.	1
15	58912A	Terminal Board	1
16	58034A	Screw #18-32 X .50	2
17	50691A	Bolt, .250-28 x 6.75	4
18	58031A	Screw, #8-32 x .38	2

230V Motor
Electrical Schematic



CLARKE TECHNOLOGY
C2K-16, C2K-18, C2K-160, C2K-180 and C2K-200
Gearbox Assembly Drawing & Parts List 1/02

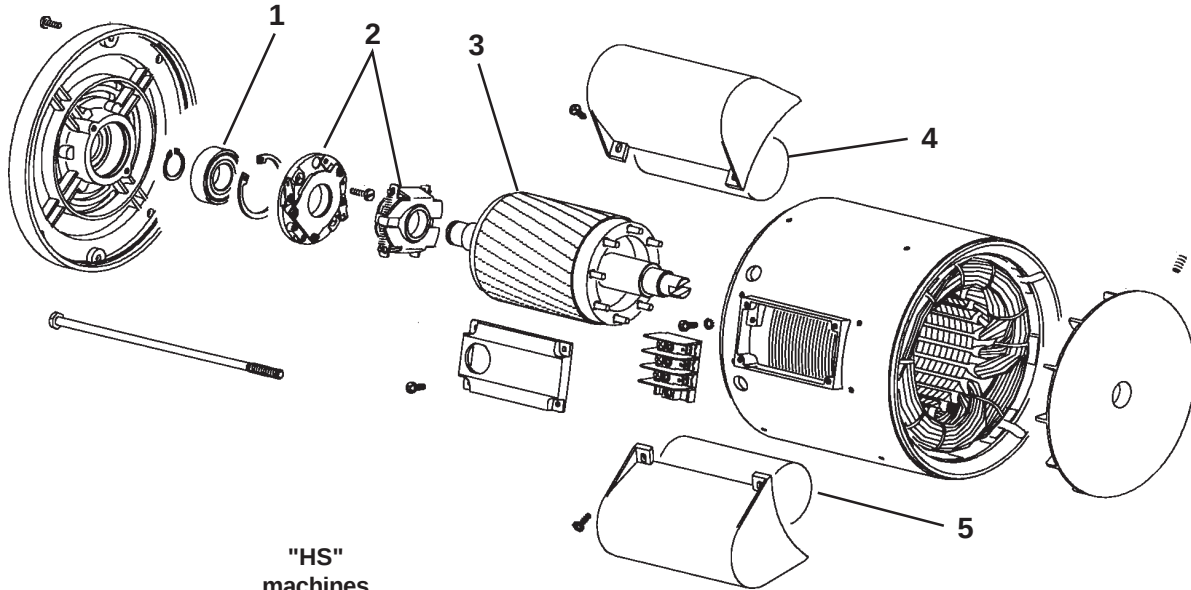
Note: If your machine has gearbox #50872A refer to this drawing for service part replacement.



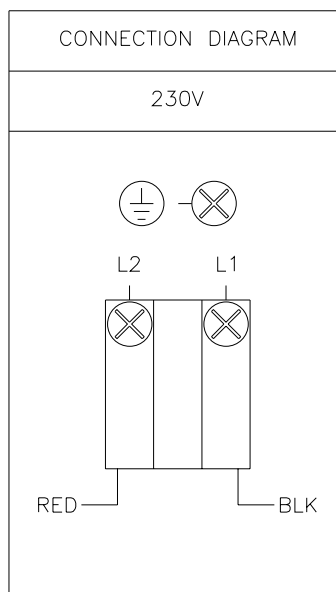
Ref.	Part No.	Description	Qty.
2	80141A	Screw, Socket Hd. Cap	6
3	56922A	Plate, Retainer	1
4	902606	Bearing	3
5	58513A	Spacer, Sleeve	1
6	53524A	Endshield	1
7	962794	Screw 10-24" x 1"	6
8	54858A	Cover, Housing	1
9	902736	Bearing	1
10	58314A	Retainer	1
11	442473	Coupling	1
12		Gear, Pinion	1
14	902737	Bearing, Needle	4
15	52020A	Cage	1
16		Gear, Idler	2
17	58312A	Shaft	2
18	902573	Bearing	1
19		Housing, Drive	1

CLARKETECHNOLOGY
C2K-1600, C2K-1800, C2K-2000, C2K-1600HS, C2K-1800HS and C2K-2000HS
Motor Assembly Drawing & Parts List 1/02

Note: If your machine has motor #50879A or #50880A refer to this drawing for service part replacements.

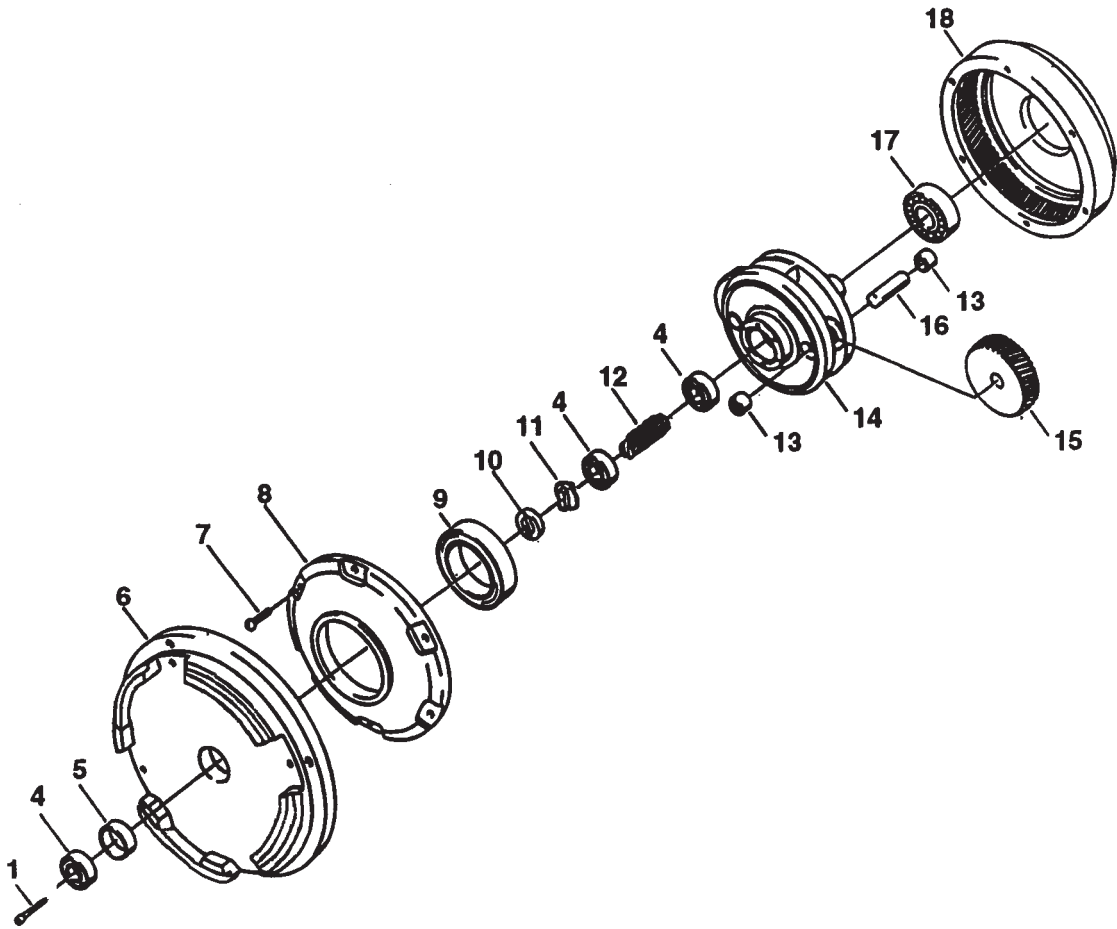


"HS" machines				
		50880A	50879A	
Ref.	Part No.	Part No.	Description	Qty
1	50861A	50861A	Ball Bearing	1
2	40153A	51054A	Centrifugal and Switch	1
3	40154A	51055A	Rotor	1
4	40155A	50862A	Capacitor, Start	1
5	40156A	50863A	Capacitor, Run	1



CLARKETECHNOLOGY
C2K-1600, C2K-1800, C2K-2000, C2K-1600HS, C2K-1800HS and C2K-2000HS
Gearbox Assembly Drawing & Parts List 1/02

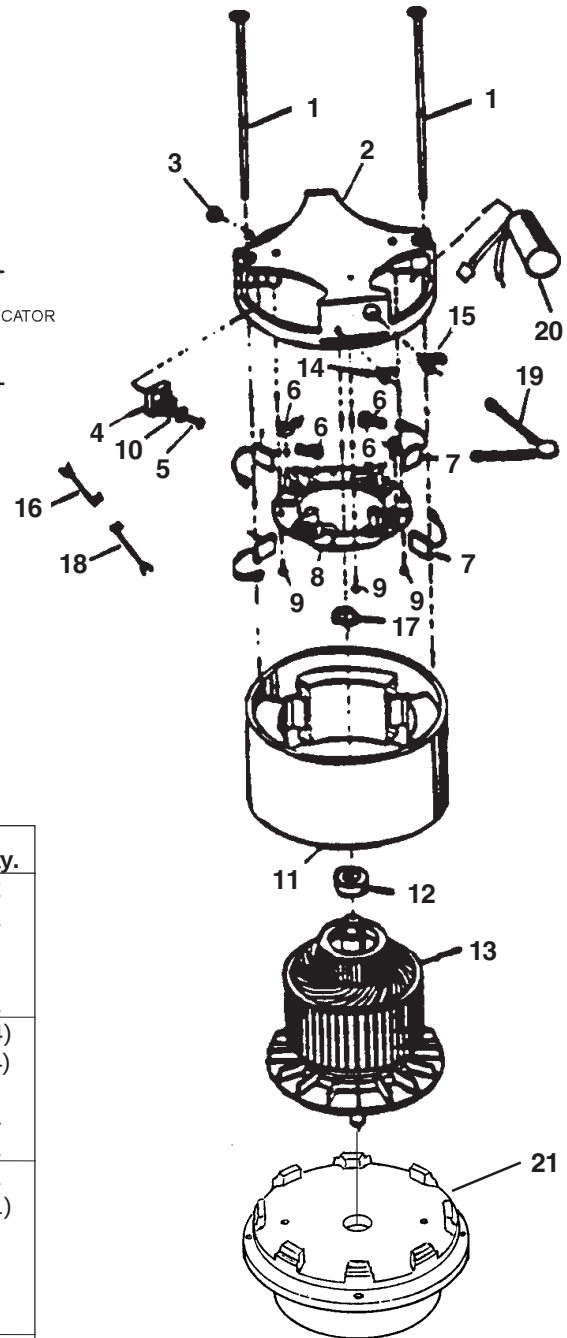
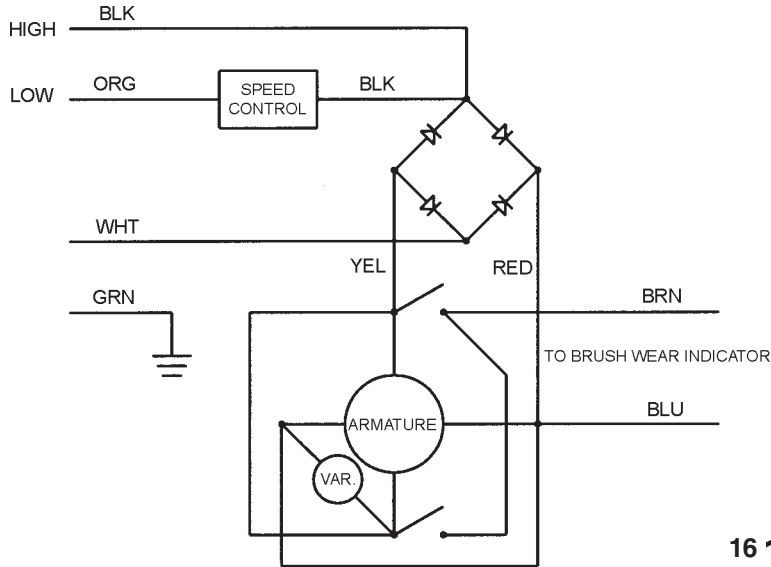
Note: If your machine has gearbox #50881A or #51344A refer to this drawing for service part replacement.



			50881A	51344A
Ref	Part No.	Description	Qty.	("HS") Qty.
1	80141A	Screw, Socket Hd. Cap	6	6
4	902606	Bearing, Ball	3	3
5	58520A	Spacer, Sleeve	1	1
6	50852A	Endshield	1	1
7	962794	Screw 10-24" x 1"	6	6
8	54858A	Cover, Housing	1	1
9	902736	Bearing	1	1
10	58314A	Retainer	1	1
11	442473	Coupling	1	1
12		Gear, Pinion	1	1
13	902737	Bearing, Needle	6	4
14	N/A	Cage	1	1
15		Gear, Idler	3	2
16	58312A	Shaft	3	2
17	902573	Bearing, Ball	1	1
18		Housing, Drive	1	1

CLARKE TECHNOLOGY
C2K-1600DS and C2K-2000DS
230V Motor Assembly Drawing & Parts List 1/02

**Note: If your machine has motor/gearbox #51342A
refer to this drawing for service part replacement.**

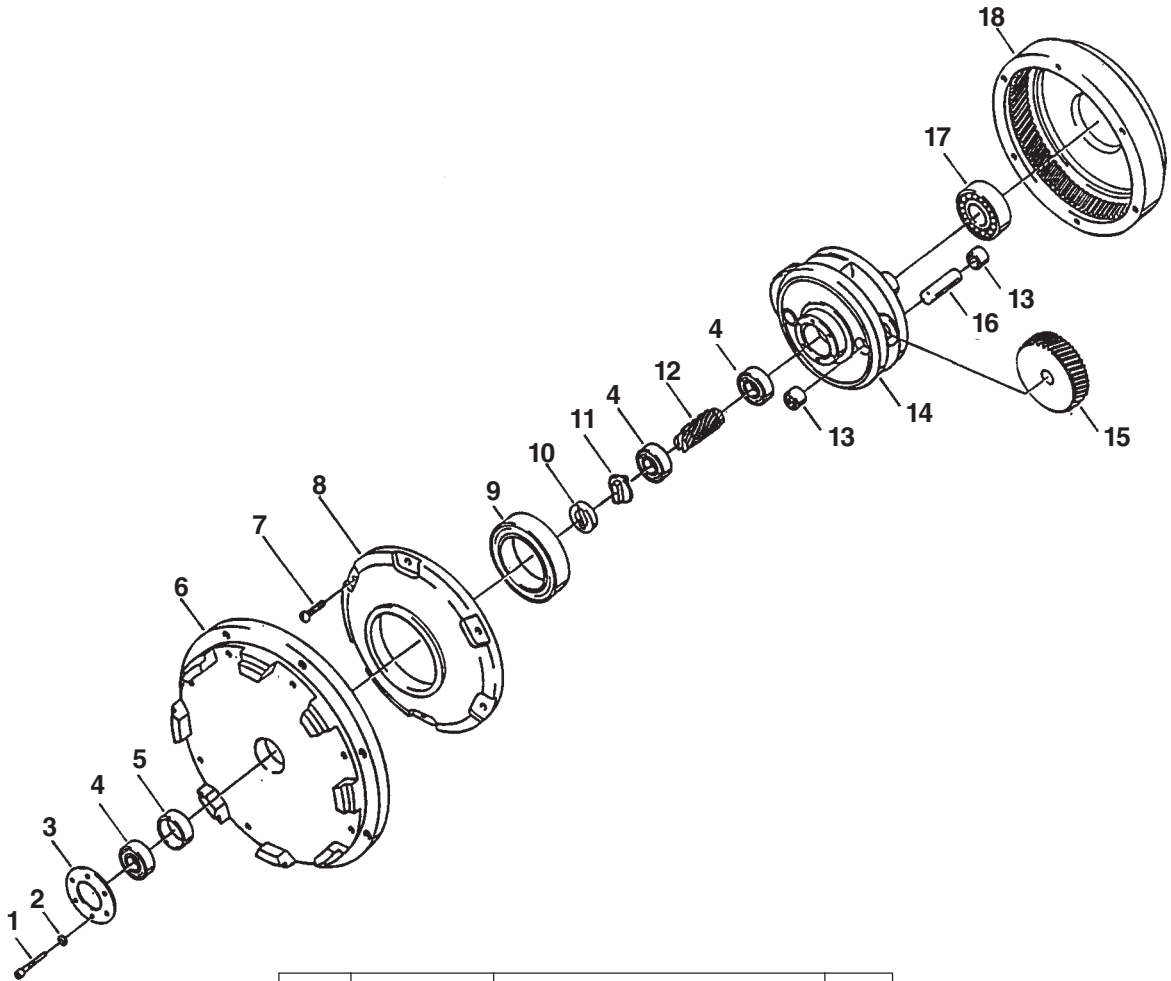


NOTE: ♦ indicates a change has been made since the last publication of this manual.

Ref	Part No.	Description	Qty.
1	50717A	Thru-Bolt	2
2	N/A	Commutator Bracket	1
3	56282A	Hex Nut	1
4♦	46105A	Rectifier	1
5	962399	Screw	1
6	448396	Spring (Included with #8)	(4)
7	40819A	Brush Asm., (Included w/#8)	(4)
8	40411A	Brush Board Asm. (incl. #'s 6,7,16,18,19)	1
9	962310	Screw	4
10	980608	#8 Flat Washer	1
11	58057A	Stator Frame	1
12	902550	Bearing-Upper (Included w/#13)	(1)
13	40323A	Armature Asm. (Includes #12)	1
14♦	58056A	Strain Relief	1
15♦	831102	Bushing	1
16	55648A	Red Lead (included w/#8)	1
17	980076	Wave Washer	1
18	55647A	Yellow Lead (included w/#8)	1
19	59607A	Varistor (Included w/#8)	(1)
20	46736A	Speed Control	1
21	51343A	Gearbox	(1)

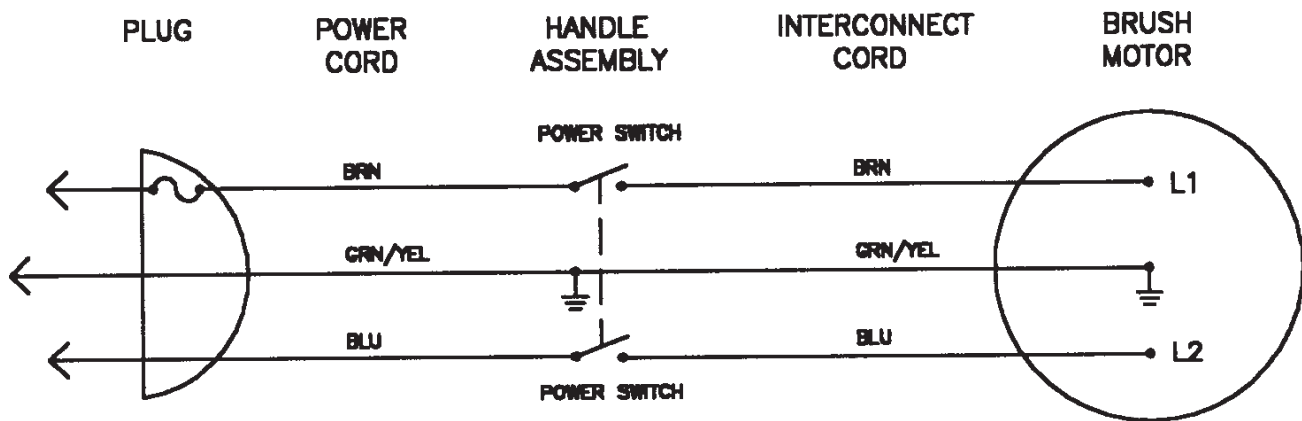
CLARKE TECHNOLOGY
C2K-1600DS and C2K-2000DS
Gearbox Assembly Drawing & Parts List 1/02

**Note: If your machine has gearbox #51343A
refer to this drawing for service parts.**

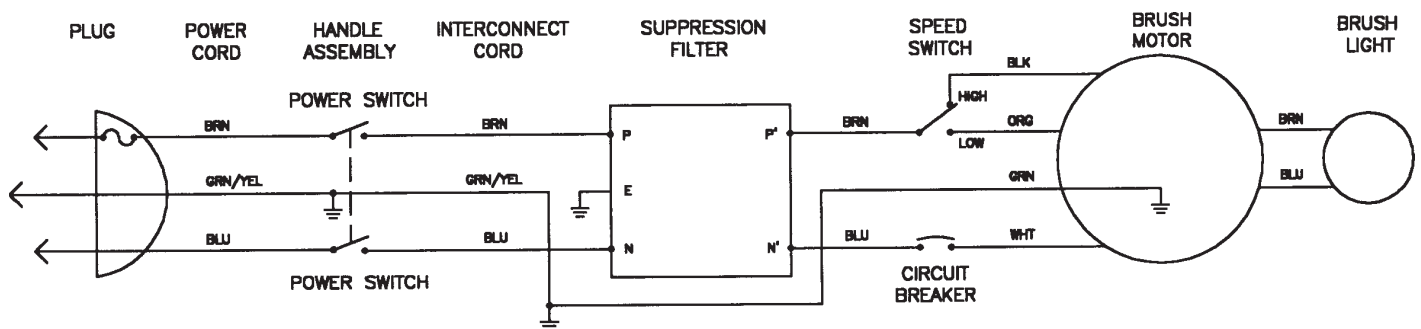


Ref	Part No.	Description	Qty.
1	80141A	Screw, Socket Hd. Cap	6
3	56922A	Retainer, Bearing	1
4	902606	Bearing, Ball	3
5	58520A	Spacer, Sleeve	1
6	53539A	Endshield	1
7	962794	Screw 10-24" x 1"	6
8	54858A	Cover, Housing	1
9	902736	Bearing	1
10	58314A	Retainer	1
11	442473	Coupling	1
12		Gear, Pinion	1
13	902737	Bearing, Needle	4
14	N/A	Cage	1
15		Gear, Idler	2
16	58312A	Shaft	3
17	902573	Bearing, Ball	1
18		Housing, Drive	1

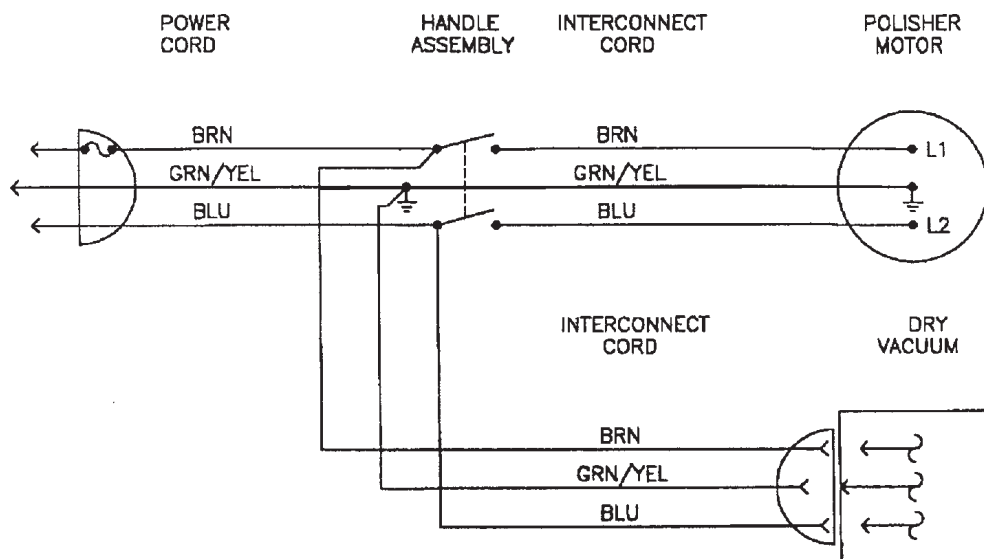
CLARKETECHNOLOGY
C2K-16, C2K-18, C2K-160, C2K-180, C2K-200,
C2K-1600, C2K-1800, C2K-2000, C2K-160HS, C2K-180HS, C2K-200HS
Wiring Diagram 230V - 50Hz 3/00



CLARKETECHNOLOGY
C2K-1600DS and C2K-2000DS
Wiring Diagram 230V 3/00



CLARKETECHNOLOGY
C2K-1800HSV
Wiring Diagram 230V 2/01



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

ALTO® PRODUCT SUPPORT BRANCHES

U. S. A. Locations

HEAD OFFICE

ALTO U.S. Inc., St. Louis, Missouri
16253 Swingley Ridge Road, Suite 200
Chesterfield, Missouri 63017-1725

PRODUCTION FACILITIES

ALTO U.S. Inc., Springdale, Arkansas
2100 Highway 265
Springdale, Arkansas 72764
(501) 750-1000
Customer Service - 1-800-253-0367
Technical Service - 1-800-356-7274

ALTO U.S. Inc., Bowling Green, Ohio 43402
1100 Haskins

SERVICE FACILITIES

ALTO U.S. Inc., Carlstadt, New Jersey 07072
150 Commerce Road
(201) 460-4774

ALTO U.S. Inc., Elk Grove, Illinois 60007
2280 Elmhurst Road
(847) 956-7900

ALTO U.S. Inc., Denver, Colorado 80204
1955 West 13th Ave.
(303) 623-4367

ALTO U.S. Inc., Houston, Texas 77040
7215 North Gessner Road

SALES AND SERVICE FACILITIES

ALTO U.S. Inc., Madison Heights, Michigan 48071-0158
29815 John R.
(810) 544-6300

ALTO U.S. Inc., Marietta, Georgia 30062
1355 West Oak Common Lane
(770) 973-5225

CLARKE TECHNOLOGY
AMERICAN SANDERS TECHNOLOGY
A.L. COOK TECHNOLOGY
Customer Service Headquarters and Factory
2100 Highway 265
Springdale, Arkansas 72764
(501) 750-1000

Technical Service
1-800-356-7274

European Locations

PRODUCTION FACILITIES

ALTO Danmark A/S, Aalborg
Blytaekkervej 2
DK-9000 Aalborg
+45 72 18 21 00

ALTO Danmark A/S, Hadsund
Industrikvarteret
DK-9560 Hadsund
+45 72 18 21 00

SALES SUBSIDIARIES

ALTO Canada Ltd., Rexdale Ontario
24 Constellation Ct.
(416) 675-5830

ALTO Overseas Inc., Sydney (Australia)
1B/8 Resolution Drive
Caringbah NSW 2229
+61 2 9524 6122

ALTO Cleaning Systems Asia Pte Ltd., Singapore
No. 17 Link Road
Singapore 619034
+65 268 1006

ALTO Deutschland GmbH, Bellenberg (Germany)
Guido-Oberdorfer-Straße 2-8
89287 Bellenberg
+49 0180 5 37 37 37

ALTO Cleaning Systems (UK) Ltd., Penrith
Gilwilly Industrial Estate
Penrith
Cumbria CA11 9BN
+44 1768 868 995

ALTO France S.A. Strasbourg
B.P. 44, 4 Place d'Ostwald
F-67036 Strasbourg
Cedex 2
+33 3 8828 8400

ALTO Nederland B.V. Vianen
Stuartweg 4C
NL-4131 NJ Vianen
+31 347 324000

ALTO Sverige AB, Molndal (Sweden)
Aminogatan 18
Box 4029
S-431 04 Molndal
+46 31 706 73 00

ALTO Norge A/S, Oslo (Norway)
Bjornerudveien 24
N-1266
+47 2275 1770

CLARKE TECHNOLOGY U.S. LIMITED WARRANTY

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

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 and motor brushes.

Clarke Technology'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 Technology floor machine. Return the card to assist Clarke Technology in providing the performance you expect from your new floor machine.

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

ALTO U.S. Inc., 2100 Highway 265, Springdale, Arkansas 72764.

ALTO reserves the right to make changes or improvements to its machine without notice.

Always use genuine Clarke Technology Parts for repair.



**CLARKE TECHNOLOGY
2100 Highway 265
Springdale, Arkansas, 72764**