



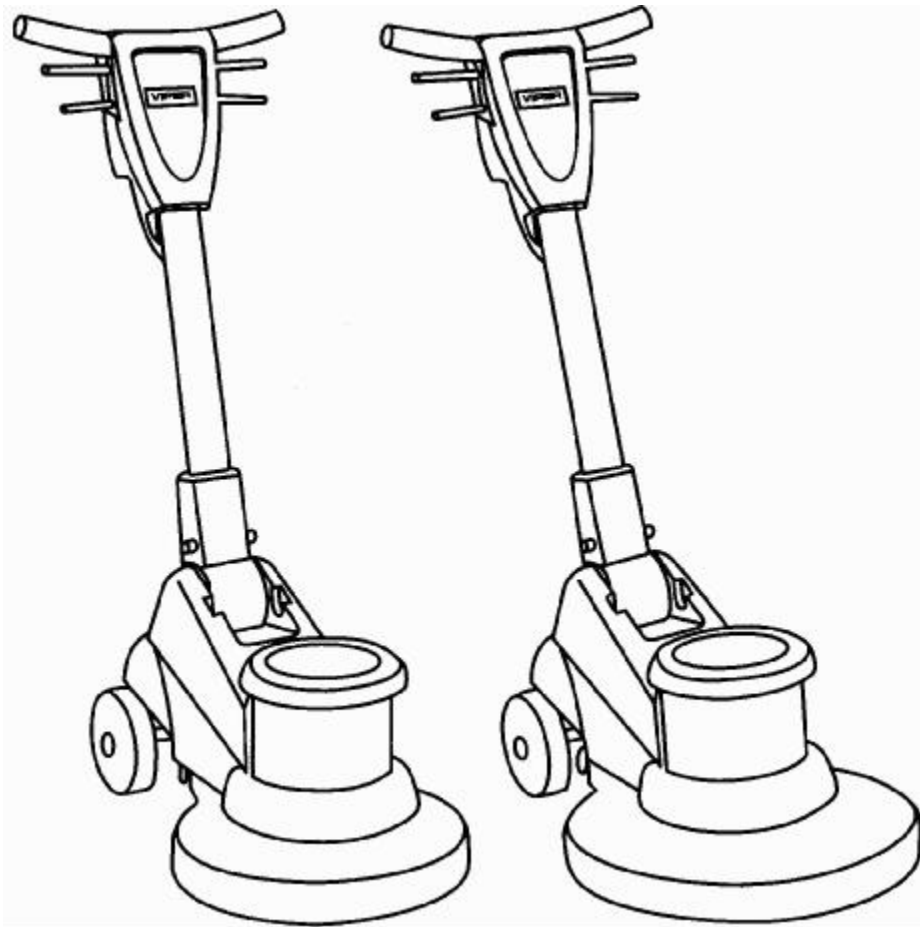
DRAGON SERIES LOW SPEEDS

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OWNERS MANUAL

IMPORTANT: READ OWNERS MANUAL CAREFULLY

Please fill out & return your warranty card!



MODEL# DR17175 DR20125 DR20175

SERIAL# _____

VIPER NORTH AMERICA
P.O. BOX 104
HAMILTON, MI 49419

VIPER ...exceptional
value

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REV.05(06-04)
VF41479



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As part of the V.I.P. family, you are entitled to the best protection by one of the most comprehensive warranties in the industry.

Thank-you for purchasing Viper products!

Tom Vander Bie, CEO

TABLE OF CONTENTS

Safety Precautions	4
Machine Operation	5
Machine Maintenance & Storage	5
Parts Lists	6-14
Wiring Diagram	15

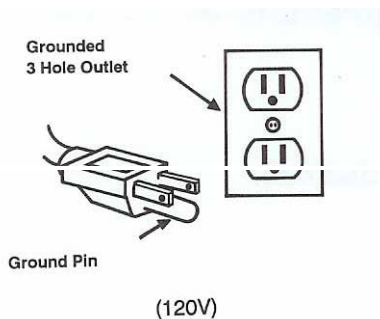


SAFETY PRECAUTIONS

GROUNDING INSTRUCTIONS

General -This floor – finishing machine shall be grounded while in use to protect the operator from electric shock. The machine is provided with a three – conductor cord and a three-contact 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 pin of the attachment plug.

This machine is for use on a nominal 120-volt circuit and has a grounding plug that resembles the plug illustrated in figure below. Make sure that the machine is connected to an outlet having the same configuration as the plug. No adapter should be used with this machine.



This machine is intended for Commercial use. It is constructed for use in an indoor environment and is not intended for any other use. Use only recommended accessories.

All operators shall read, understand and exercise the following safety precautions:

- 1] Do not operate machine:
 - Unless trained and authorized.
 - Unless you have read and understand operators manual.
 - In flammable or explosive areas.
 - With a damaged cord or plug.
 - If not in proper operating condition.
 - In outdoor areas.
 - In standing water
 - Without bag/filters in place
 - With the use of extension cords.
- 2] Before operating machine:
 - Make sure all safety devices are in place and operate properly.
- 3] When using machine:
 - Do not run machine over cord.
 - Do not pull machine by cord or plug.
 - Do not pull cord around sharp edges or corners.
 - Do not unplug by pulling on the cord.
 - Do not stretch cord.
 - Do not handle plug with wet hands.
 - Keep cord away from heated surfaces.
 - Do not pick up burning or smoking debris such as cigarettes, matches or hot ashes.
 - Report machine damage or faulty operation immediately.
- 4] Before leaving or servicing machine:
 - Turn off machine.
 - Unplug cord from outlet.
- 5] When servicing machine:
 - Unplug cord from outlet.
 - Use manufacturer supplied or approved replacements parts.

Operation of High Speed Floor Machine

- * Read operators manual thoroughly prior to operating or servicing this machine.

GENERAL USE

- 1] Remove any obstructions or other obstacles in the area which is to be cleaned.
- 2] Place handle in upright position and tilt machine back until handle rests on the floor.

* Be sure the machine is not plugged into an outlet.

- 3] Attach the pad driver or brush to the machine by placing the clutch plate over the gearbox hub and turning the driver / brush 1/4 turn.
- 4] Place machine back into its upright position.
- 5] Plug power cord into grounded outlet.

* Do not use an extension cord in conjunction with the standard power cord.

- 6] Adjust handle height by squeezing lower handle trigger with your right hand. Adjust height to a comfortable operating position.
- 7] To start the machine, push on the handle mounted safety switch and squeeze any of the two switch levers.
- 8] When the machine is in operation, both hands should be placed on the handle.
- 9] During operation, to make the machine go right, gently raise the handle. To make the machine to left, gently lower the handle.
- 10] To stop the machine at any time, simply release the switch lever, and the machine will stop automatically.

MAINTENANCE

To keep the machine performing well for many years, please follow the following maintenance procedures.

* Always confirm that the machine is unplugged prior to performing any maintenance or repairs.

- 1] Unplug machine as soon as you are done using it.
- 2] Tilt machine back and remove pad driver or brush.

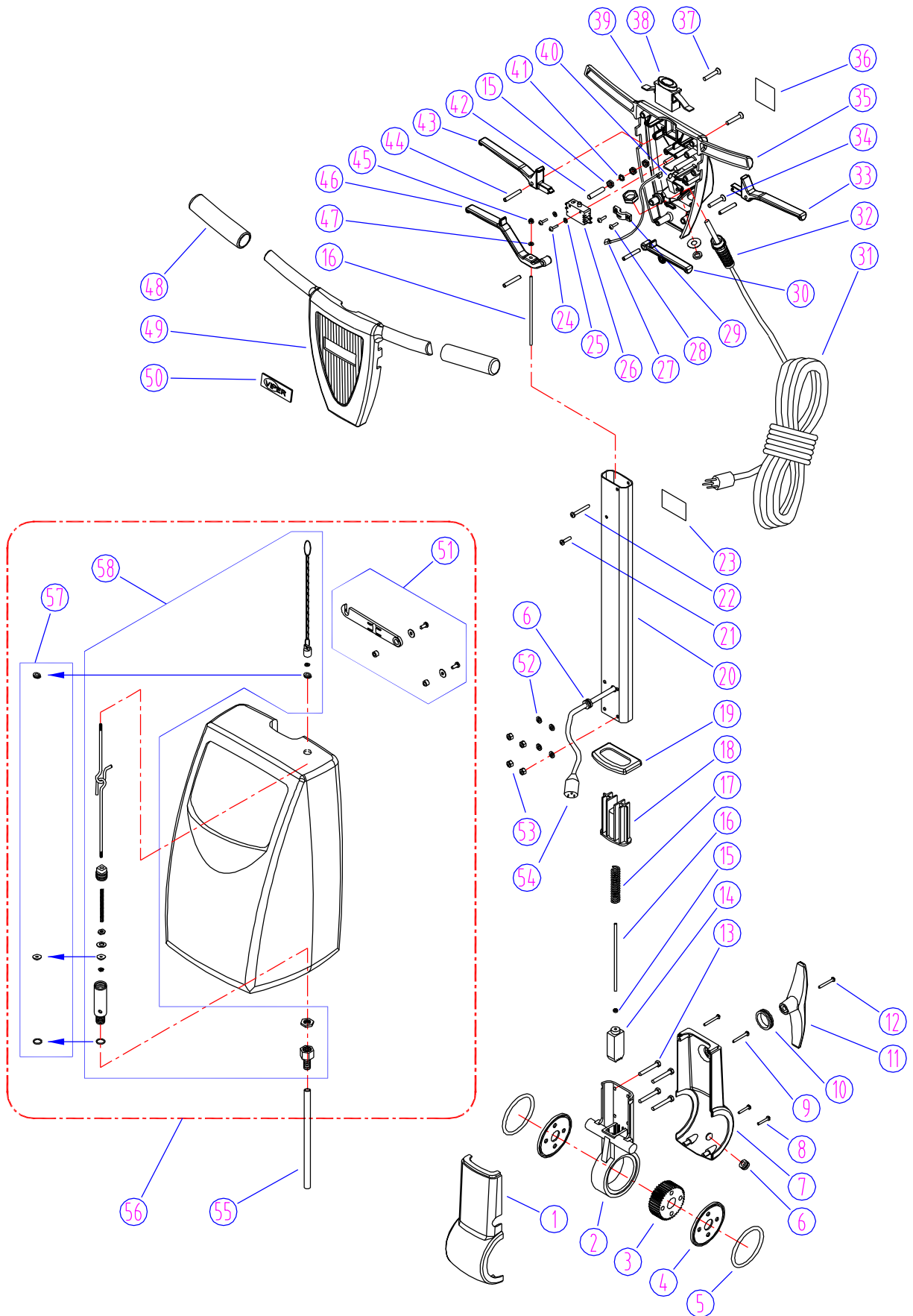
* Never store a low speed machine with the pad driver or brush mounted to the machine

- 3] Clean the outside of the machine with a mild cleaner.
- 4] Check power cord for any damage. If any damage is detected, replace the cord immediately.
- 5] Lubricate wheels with a water resistant lubricant every month.
- 6] Check machine for loose or missing nuts and bolts, and replace as necessary.
- 7] If the machine is used in a dusty environment, you may remove the motor cover and blow the motor clean with compressed air. This will allow for good ventilation and help the motor run cooler.

STORAGE

- 1] Unplug machine from power source.
- 2] Tilt machine back and remove pad driver or brush.
- 3] Store in upright position in a dry area.

HANDLE GROUP FOR DR SERIES



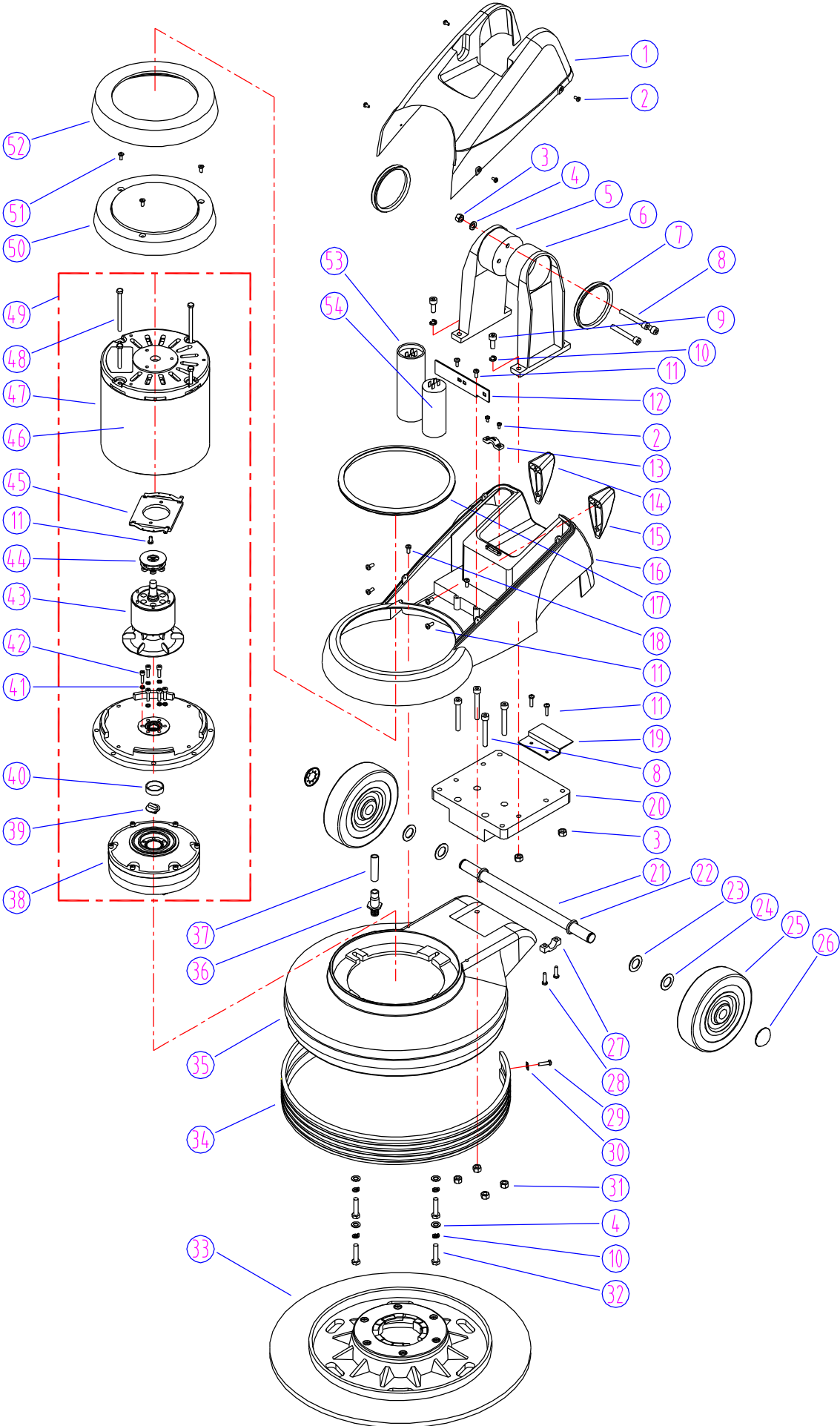
HANDLE GROUP PARTS LIST FOR DR SERIES

DIA NO	PART NUMBER	DESCRIPTION	NO REQ'D
1	VF47009	FRONT COVER,SEAT,GEAR	1
2	VF47029	SEAT,GEAR	1
3	VF47028	GEAR	1
4	GV40227	WASHER,NYLON	2
5	GV40228	"O" RING,GEAR SEAT	2
6	VF50120	GROMMET	2
7	VF47015	REAR COVER,SEAT,GEAR	1
8	VF14080	SELF-TAPPING SCREW,M4x25	2
9	VF14000	SELF-TAPPING SCREW,M4x30	2
10	VF47046	SEAL,HOOK	1
11	VF47045	HOOK,CABLE	1
12	VF13616	HEX SCREW,M10x55	1
13	GT13019	SCREW,M6x45	4
14	VF47052	INSERT,LEVELING	1
15	GT13013	NUT,M4	4
16	VF47103	ROD LEVELING	1
17	VF47007	SPRING,LEVELING	1
18	VF47033	RETAINER	1
19	VF47008	SEAL,TUBE	1
20	VF47102	TUBE	1
21	VA13474	SCREW,M5x16,PH	1
22	VA13476	SCREW,M5x40,PH	1
23	VF41187	SERIAL TAG(DR17125)	1
	VF41188	SERIAL TAG(DR17175)	1
	VF41189	SERIAL TAG(DR20125)	1
	VF41190	SERIAL TAG(DR20175)	1
24	VF14212	SCREW,M3x25,PH	2
25	VF13511	WASHER,LOCK,INTERNAL TOOTH	2
26	VF99023	SWITCH ASSY,20A,250V	1
27	VF45124	JUMP WIRE	1
28	VV13650	SCREW, M4 x 10, PH	2
29	VF48309	BLOCK, HANDLE CABLE	1
30	VF46708	LEVELING HANDLE, SOLUTION	1
31	VF45119	CORD,POWER SUPPLY,STOW 14/3C	1
32	AS22009	STRAIN RELIEF,CORD	1
33	VF46703	LEVELING HANDLE, SWITCH, LEFT	1

HANDLE GROUP PARTS LIST FOR DR SERIES

DIA NO	PART NUMBER	DESCRIPTION	NO REQ'D
34	VF14226	SCREW, FH, M6X35	2
35	VF52118	REAR COVER	1
36	VF40994	READ MANUAL LABEL	1
37	VF14218	SCREW, M6X40, PH	2
38	VF46705	SAFETY BLOCK	1
39	GV40218	SPRING,SAFETY BLOCK	1
40	VF99012	CIRCUIT BREAKER,12AMPS (DR17175/20175)	1
	VF99010C	CIRCUIT BREAKER,17AMPS (DR17125/20125)	1
41	VF13527	EXTERNAL TOOTH,WASHER ϕ 4	1
42	VF13526	HEX SOCKET SCREW,M4 x 30	1
43	VF46704	LEVELING HANDLE, RIGHT, SWITCH	1
44	VF48306	PIN, LEVER	4
45	GT13014	NUT, M4, NYLON INSERT	1
46	VF46707	LEVELING HANDLE,ROD	1
47	GT13017	BIG WASHER, PLAIN ϕ 4 x ϕ 16	1
48	VF46706	HANDLE GRIP	2
49	VF46701	FRONT COVER,HANDLE HOUSING	1
50	VF47035A	"VIPER" LOGO	1
51	VF40002	TANK MOUNTING KIT	1
52	VF13600	WASHER,PLAIN, ϕ 6	4
53	VF13502	NUT,M6,NYLON INSERT	4
54	VF45120	CABLE,HANDLE, SJTW 14/3C	1
55	VF40139	HOSE,SOLUTION	1
56	MF-EZ-001	SOLUTION TANK ASSY	1
57	VF40001	GASTET / SEAL KIT	1
58	VF40200	VALVE ASSEMBLY KIT	1

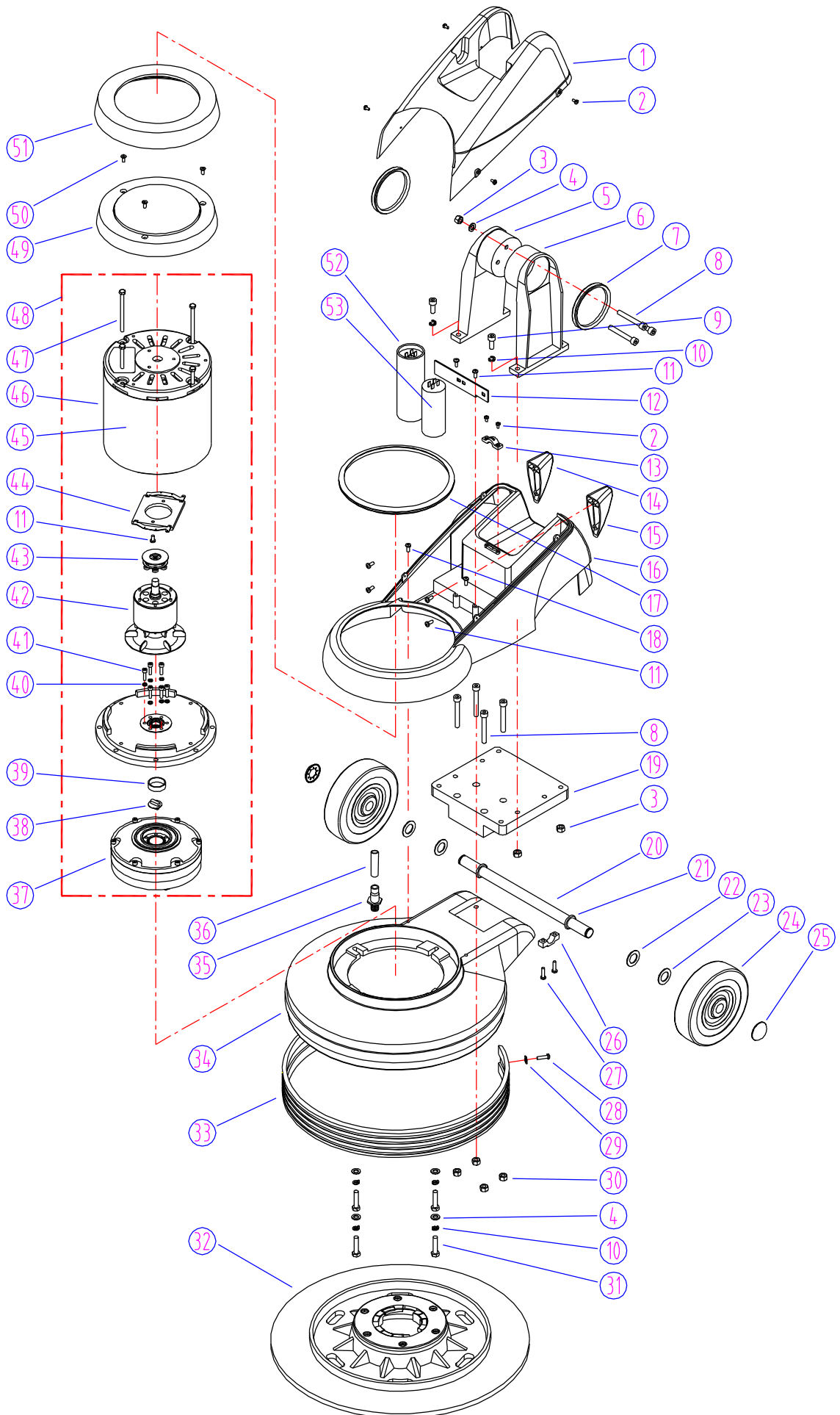
BASE GROUP FOR DR17175



BASE GROUP PARTS LIST FOR DR17175

DIA NO	PART NUMBER	DESCRIPTION	NO REQ'D
1	VF47012	UPPER COVER, MOTOR	1
2	VA13477	SELF-TAPPING SCREW M4x16	6
3	VF13503	NUT, M8	7
4	VF13524	WASHER, PLAIN	7
5	VF47037	RIGHT ARM	1
6	VF47019	LEFT ARM	1
7	VF47026	SEAL, ARM	2
8	GT13016	SCREW, M8x60	7
9	VF14088	SCREW, M8x25, HEX SOCKET	4
10	VF13519	WASHER, LOCK ø8	8
11	VV20509	SCREW, M5x10	8
12	VF47022	MOUNTING FRAME, CAPACITOR	1
13	VA21517	CLAMP BLOCK	1
14	VF52114	PLASTIC STAND, RIGHT	1
15	VF52115	PLASTIC STAND, LEFT	1
16	VF47016	LOWER COVER, MOTOR	1
17	VF47018	SEAL, LOWER COVER	1
18	GT13001	SELF-TAPPING SCREW, M5x12	2
19	VF47056	PLATE 17"	1
20	VF47017	PLATFORM	1
21	VF47025	AXEL	1
22	VF14004	RETAINING RING, EXTERNAL, ø19	2
23	VF50123	WASHER, ø19	2
24	VF47027	WAVING WASHER, ø19	2
25	VF47055	WHEEL 6.4"	2
26	VA96851	CAP, AXEL	2
27	VF47038	CLAMP BLOCK, AXLE	2
28	VV13621	SELF-TAPPING SCREW, M5x20	4
29	VA13474	SCREW, M5x16	2
30	VF13474A	WASHER, PLAIN	2
31	VF13513	NUT, M8	4
32	GT13018	SCREW, M8x30	4
33	MF-VF021	16" PAD HOLDER	1
34	GV40223	BUMPER 17"	1
35	VF40101C	FRAME 17"	1
36	VF40152	BARB HOSE	1
37	VF40139	HOSE, SOLUTION	1
38	VF999802B	GEAR BOX	1
39	VF99021	COUPLING	1
40	MT01102	SLEEVE	1
41	VV13601	WASHER, LOCK, ø5	6
42	VV13636	SCREW M5 X 30, HEX SOCKET	6
43	YCQ11200	ROTOR WITH FAN ASSY	1
44	YCQ10300A	CENTRIFUGAL SWITCH	1
45	YCQ10300B	STATIONAL SWITCH	1
46	VF41091	LABEL, MOTOR	1
47	VF999785	MOTOR, 120V 1.75HP	1
48	YLQ17507	BOLT, M6 x 201	4
49	VF999797	MOTOR W/GEAR BOX ASSY, 1.75HP, 120V	1
50	VF44001	TOP COVER, MOTOR	1
51	VV20150	SCREW, M5 x 12, HEX SOCKET, SST	3
52	VF47023	BUMPER, TOP COVER	1
53	VF999805	START-UP CAPACITOR, 400MFD/110V	1
54	VF999854	RUNNING CAPMCIOR, 50UF/370V	1

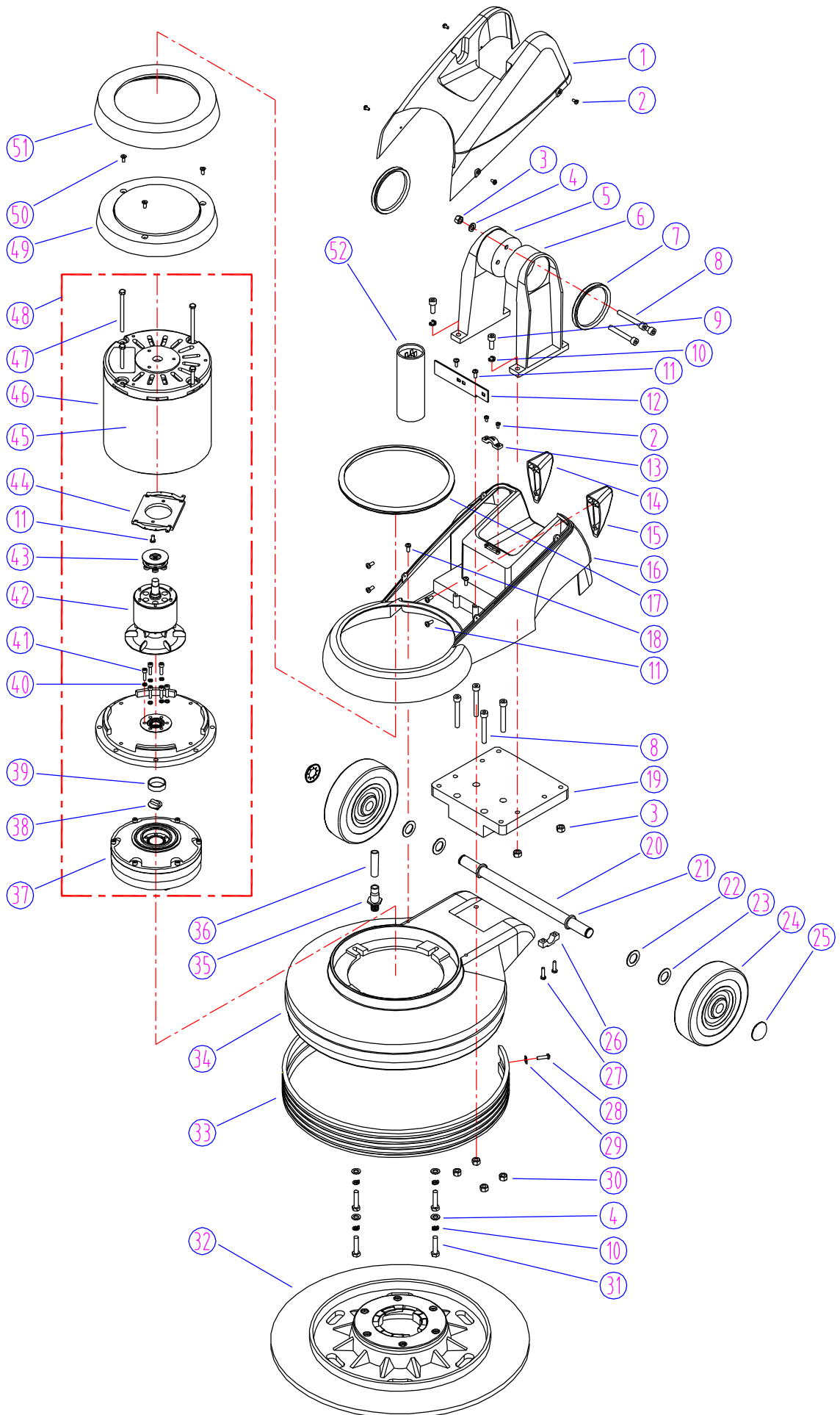
BASE GROUP FOR DR20175



BASE GROUP PARTS LIST FOR DR20175

DIA NO	PART NUMBER	DESCRIPTION	NO REQ'D
1	VF47012	UPPER COVER, MOTOR	1
2	VA13477	SELF-TAPPING SCREW M4x16	6
3	VF13503	NUT, M8	7
4	VF13524	WASHER, PLAIN	7
5	VF47037	RIGHT ARM	1
6	VF47019	LEFT ARM	1
7	VF47026	SEAL, ARM	2
8	GT13016	SCREW, M8x60	7
9	VF14088	SCREW, M8x25, HEX SOCKET	4
10	VF13519	WASHER, LOCK ø8	8
11	VV20509	SCREW, M5x10	8
12	VF47022	MOUNTING FRAME, CAPACITOR	1
13	VA21517	CLAMP BLOCK	1
14	VF52114	PLASTIC STAND, RIGHT	1
15	VF52115	PLASTIC STAND, LEFT	1
16	VF47016	LOWER COVER, MOTOR	1
17	VF47018	SEAL, LOWER COVER	1
18	GT13001	SELF-TAPPING SCREW, M5x12	2
19	VF47017	PLATFORM	1
20	VF47025	AXEL	1
21	VF14004	RETAINING RING, EXTERNAL, ø19	2
22	VF50123	WASHER, ø19	2
23	VF47027	WAVING WASHER, ø19	2
24	VF47055	WHEEL 6.4"	2
25	VA96851	CAP, AXEL	2
26	VF47038	CLAMP BLOCK, AXLE	2
27	VV13621	SELF-TAPPING SCREW, M5x20	4
28	VA13474	SCREW, M5x16	2
29	VF13474A	WASHER, PLAIN	2
30	VF13513	NUT, M8	4
31	GT13018	SCREW, M8x30	4
32	MF-VF022	19" PAD HOLDER	1
33	GV40233A	BUMPER 20"	1
34	VF40100C	FRAME 20"	1
35	VF40152	BARB HOSE	1
36	VF40139	HOSE, SOLUTION	1
37	VF999802B	GEAR BOX	1
38	VF99021	COUPLING	1
39	MT01102	SLEEVE	1
40	VV13601	WASHER, LOCK, ø5	6
41	VV13636	SCREW M5 X 30, HEX SOCKET	6
42	YCQ11200	ROTOR WITH FAN ASSY	1
43	YCQ10300A	CENTRIFUGAL SWITCH	1
44	YCQ10300B	STATIONAL SWITCH	1
45	VF41091	LABEL, MOTOR	1
46	VF999785	MOTOR, 120V 1.75HP	1
47	YLQ17507	BOLT, M6 x 201	4
48	VF999797	MOTOR W/GEAR BOX ASSY, 1.75HP, 120V	1
49	VF44001	TOP COVER, MOTOR	1
50	VV20150	SCREW, M5 x 12, HEX SOCKET, SST	3
51	VF47023	BUMPER, TOP COVER	1
52	VF999805	START-UP CAPACITOR, 400MFD/110V	1
53	VF999854	RUNNING CAPMCITOR, 50UF/370V	1

BASE GROUP FOR DR20125

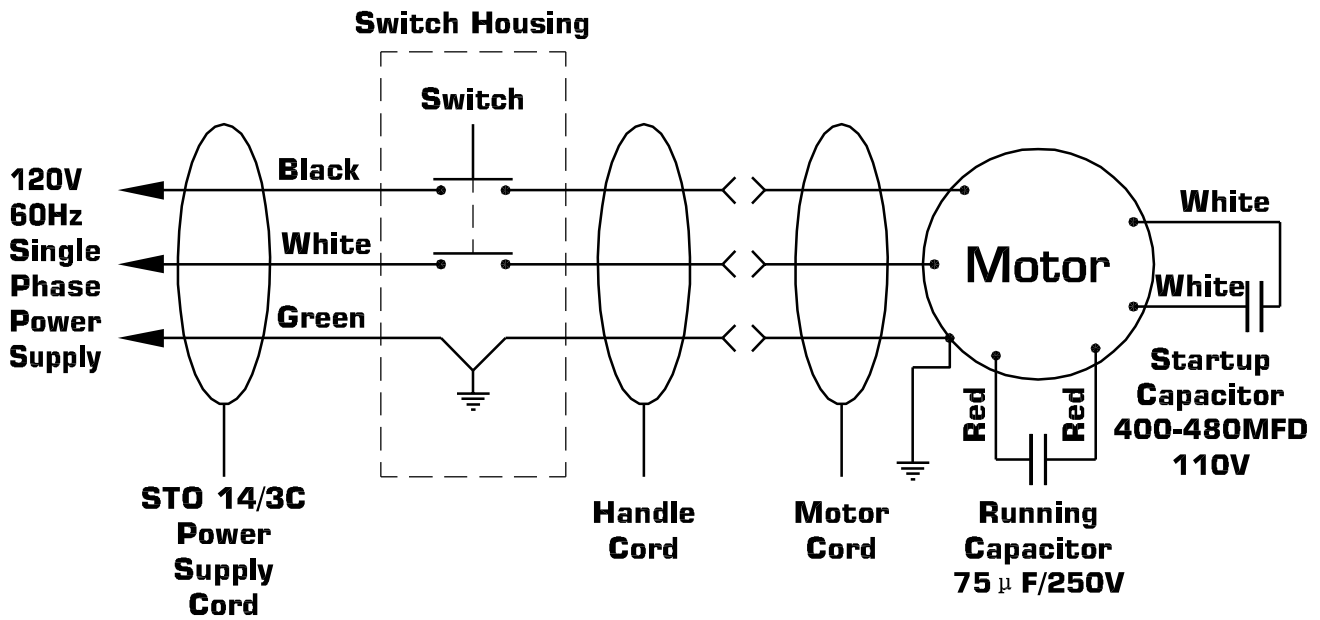


BASE GROUP PARTS LIST FOR DR20125

DIA NO	PART NUMBER	DESCRIPTION	NO REQ'D
1	VF47012	UPPER COVER, MOTOR	1
2	VA13477	SELF-TAPPING SCREW M4x16	6
3	VF13503	NUT, M8,NYLON INSERT	7
4	VF13524	WASHER, PLAIN,ø8	7
5	VF47037	RIGHT ARM	1
6	VF47019	LEFT ARM	1
7	VF47026	SEAL, ARM	2
8	GT13016	SCREW, M8x60,HEX SOCKET	7
9	VF14088	SCREW,M8x25,HEX SOCKET	4
10	VF13519	WASHER, LOCK ø8	8
11	VV20509	SCREW, M5x10,PH,SST	8
12	VF47022	MOUNTING FRAME, CAPACITOR	1
13	VA21517	CLAMP BLOCK,CABLE	1
14	VF52114	PLASTIC STAND, RIGHT	1
15	VF52115	PLASTIC STAND, LEFT	1
16	VF47016	LOWER COVER, MOTOR	1
17	VF47018	SEAL, LOWER COVER	1
18	GT13001	SELF-TAPPING SCREW, M5x12	2
19	VF47017	PLATFORM	1
20	VF47025	AXEL	1
21	VF14004	RETAINING RING,EXTERNAL,ø19	2
22	VF50123	WASHER,ø19	2
23	VF47027	WAVING WASHER,ø19	2
24	VF47055	WHEEL 6.4"	2
25	VA96851	CAP, AXEL	2
26	VF47038	CLAMP BLOCK, AXLE	2
27	VV13621	SELF-TAPPING SCREW, M5x20,PH	4
28	VA13474	SCREW, M5x16,PH	2
29	VF13474A	WASHER, PLAIN,ø5 x ø16	2
30	VF13513	NUT, M8	4
31	GT13018	SCREW, M8x30	4
32	MF-VF022	19"PAD HOLDER	1
33	GV40233A	BUMPER 20"	1
34	VF40100C	FRAME 20"	1
35	VF40152	BARB HOSE,FRAME	1
36	VF40139	HOSE, SOLUTION	1
37	VF999802B	GEAR BOX	1
38	VF99021	COUPLING	1
39	MT01102	SLEEVE	1
40	VV13601	WASHER,LOCK ø5	6
41	VV13636	SCREW M5 X 30,HEXSOCKET	6
42	YCQ11200	ROTOR WITH FAN ASSY	1
43	YCQ10300A	CENTRIFUGAL SWITCH	1
44	YCQ10300B	STATIONAL SWITCH	1
45	VF41091	LABEL,MOTOR	1
46	VF999800	MOTOR ASSY, 1.25HP,120V	1
47	YLQ17507	BOLT,M6 x 201	4
48	VF999798	MOTOR W/GEAR BOX ASSY,1.25HP,120V	1
49	VF44001	TOP COVER,MOTOR	1
50	VV20150	SCREW,M5 x 12,HEX SOCKET,SST	3
51	VF47023	BUMPER, TOP COVER	1
52	VF999805	START-UP CAPACITOR,400MFD/110V	1

Wiring Diagram

DR17125 DR20175



DR20125

