



Electronic Service Manuals

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www.Michco.Com

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Serving the Cleaning Industry Since 1922

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EX13100

ORDER #85500

*Portable Extractor 13 Gallon
100 psi Pump*

FEATURES

- 13 Gallon Solution and Recovery Tank
- Dual 2 stage Vacuum Motors/150" Waterlift
- 17' of Vacuum & Solution Hose
- Stainless Steel Wand
- Large Rear Wheels for Easy Transport

The Betco EX Box Extractors are designed to help you handle the toughest cleaning jobs. Large rear transport wheels and molded in handle assembly make these unit's easy to transport. The dual 2 stage vacuum system creates 150" of waterlift to help reduce dry time. With model options such as variable pressure and heat, these extractors give you the power and performance your looking for!

WARRANTY

Tank: 10 Year

Other components: 3 Year*

*Please refer to Betco Equipment Price/Product Guide for complete equipment warranty information.



SPECIFICATIONS

- Vacuum Motor: Dual Bypass 2 Stage
- Pump: 100 psi
- Amp Draw: 14.5 amps
- Volts: 115 AC
- Power Cord: 30' 14/3 Gauge
- Vacuum & Solution Hoses 17'
- 12" Stainless Steel Wand
- Weight: 78 Lbs.

APPLICATIONS

- Residential/Commercial Carpet Extraction
- Walk off Floor Matting Extraction Cleaning

Authorized Betco Distributor:

Better Solutions Come From...



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EX13205

ORDER #85501

*Portable Extractor 13 Gallon
with Variable Pump up to 205 psi*

FEATURES

- 13 Gallon Solution and Recovery Tank
- Dual 2 stage Vacuum Motors/150" Waterlift
- 17' of Vacuum & Solution Hose
- 12' Stainless Stain Wand
- Large Rear Wheels for Easy Transport

The Betco EX Box Extractors are designed to help you handle the toughest cleaning jobs. Large rear transport wheels and molded in handle assembly make these unit's easy to transport. The dual 2 stage vacuum system creates 150" of waterlift to help reduce dry time. With model options such as variable pressure and heat, these extractors give you the power and performance your looking for!

WARRANTY

Tank: 10 Year

Other components: 3 Year*

*Please refer to Betco Equipment Price/Product Guide for complete equipment warranty information.



SPECIFICATIONS

- Vacuum Motor: Dual Bypass 2 Stage
- Pump: 205 Variable psi
- Amp Draw: 14.5 amps
- Volts: 115 AC
- Power Cord: 30' 14/3 Gauge
- Vacuum & Solution Hoses 17'
- Stainless Steel Wand
- Weight: 78 Lbs.

APPLICATIONS

- Residential/Commercial Carpet Extraction
- Walk off Floor Matting Extraction Cleaning

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EX13100 H

ORDER #85502

*Portable Extractor 13 Gallon
with Heat Exchanger*

FEATURES

- 13 Gallon Solution and Recovery Tank
- Dual 2 stage Vacuum Motors/150" Waterlift
- 17' of Vacuum & Solution Hose
- 12" Stainless Steel Wand
- Large Rear Wheels for Easy Transport

The Betco EX Box Extractors are designed to help you handle the toughest cleaning jobs. Large rear transport wheels and molded in handle assembly make these unit's easy to transport. The dual 2 stage vacuum system creates 150" of waterlift to help reduce dry time. With options such as variable pressure and heat, these extractors give you the power and performance your looking for!

WARRANTY

Tank: 10 Year

Other components: 3 Year*

*Please refer to Betco Equipment Price/Product Guide for complete equipment warranty information.



SPECIFICATIONS

- Vacuum Motor: Dual Bypass 2 Stage
- Pump: 100 psi
- Heat Exchanger: 200 degree
- Amp Draw: 14.5 amps
- Volts: 115 AC
- Power Cord: 30' 14/3 Gauge
- Vacuum & Solution Hoses 17'
- Weight: 78 Lbs.

APPLICATIONS

- Residential/Commercial Carpet Extraction
- Walk off Floor Matting Extraction Cleaning

Authorized Betco Distributor:

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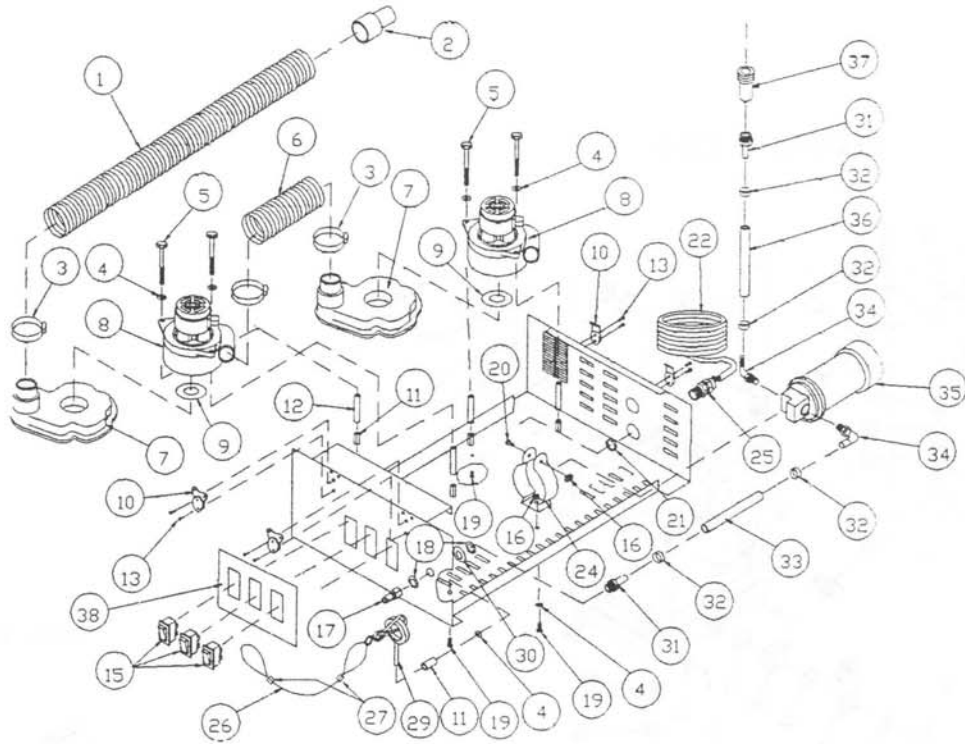
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Betco EX13100, EX13205, EX13100H Parts List				
Item #	Part#	Code	Description	
		Chassis Assembly		
1		116013	Axle Cap	
2	85693	116011	10" X 1.75" GREY NON-MARKING WHEEL	
3		::	#10-32 x 3/8" Phil Head Pan Screw	
4		::	#10 Flat Washer	
5,9,10	85690	400088	ATTACHMENT PLATE ASSEMBLY FOR Box Ext.	
6		::	#8-32 x 1/4" Phil Head Pan Screw	
7		113004	Latch	
8		::	1/4-20 x 1/2" Bolt	
9		::	Blind Rivet	
10		::	Keeper See Part # 5	
11	85692	130046	BODY HINGE	
12	85695	116010	FRONT SWIVEL CASTER FOR Box Ext.	
14	85696	130001	AXLE FOR STANDARD WHEELS	
15		::	Rubber Grommet	
16		::	Screw	
17		130095	Caster Plate	
18		::	#10 x 3/4" Hex Head Screw	
		Power Module		
1		105019	1.5" Vac Hose 24" Long	
2		105022	1.5" Hose Cuff	
3		113010	Large Hose Clamp	
4		::	1/4" Flat Washer	
5		::	1/4"-20 x 5" Bolt	
6		105016	2" Dia. Black Vac Hose 5.5' Long	
7	85543	118010	VACUUM MANIFOLD - TALL (FORMERLY PART # DXC2069)	
8	85538	104001	2 STAGE VACUUM MOTOR - 115 VOLT (DXC2071)	
9	85545	112017	VACUUM MOTOR GASKET (CJY23/RSH2)	
10		113031	Butterfly Latch	
11		101081	Rod Nut	
12		211006	Spacer	
13		::	1/8" Dia Blind Rivet 1.5" Long	
14		::	Not Used	
15	85570	103038	2-WAY ROCKER SWITCH (RSE33)	
16		::	See #24	
17	85638	115034	MALE QUICK CONNECT	
18		::	9/16" SS Flat Washer	
19		::	1/4-20 x 3/8" Pem Stud	
20		::	See #24	
21		103027	Conduit Nut	
22	86662	103043	30' ELECTRICAL CORD - 14/3 (RSE39)	
23		::	1/4-20 Nut	
24		113008	Pump Clamp	
25	85563	103026	CORD RESTRAINT (RSE24)	
26		103074	Restaining Cable	
27		101136	Cable Clamp	
28		113034	7/16" Snap Clip	
29		101135	Eyebolt	
30		::	1/2" Flat Washer	
31		115046	3/8" x 1/4" Male Hose Barb	
32	85730	113012	SMALL HOSE CLAMP (RSH12)	
33	85733	115014	90 DEGREE BRASS ELBOW (RBR16)	
34	85735	115024	MALE HOSE BARB - 3/8" X 1/4" (RBR23)	
35	85552	117002SV	PUMP - 100 PSI - 115 VOLT (DXC2057) VITON	
36		105014	3/8 " Solution Hose 15" Long	
37	85639	115035	FEMALE QUICK CONNECT	
38		107001	Switch Decal	
39		130006	Metal Chassis	

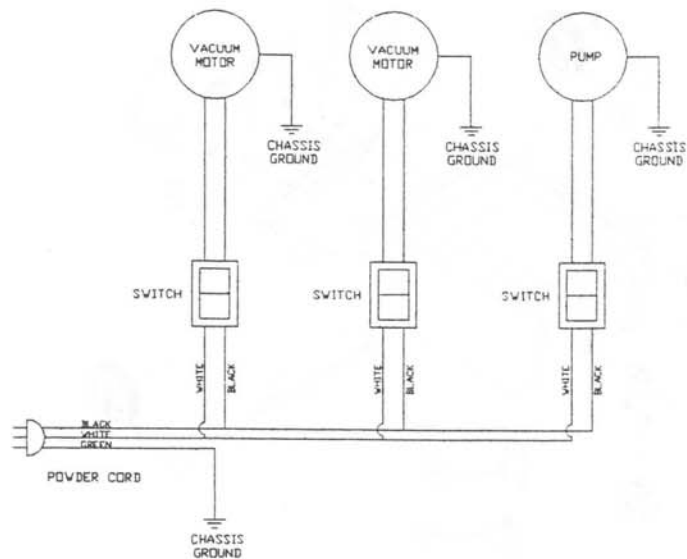
Betco EX13100, EX13205, EX13100H Parts List

Item #	Part#	Code	Description
Solution Tank			
1	85699	112011	HANDLE GRIP
2		***	1/4-20 X 3/4" SS Bolt
3		***	1/4-20 SS Nut
4	85700	130043	HANDLE - Box Ext. (WITHOUT GRIPS)
5	85636	114024	PUMP STRAINER (RSH13)
6	85731	115010	HEX NIPPLE - 1/4" (RBR12)
7		***	1/2" Flat Washer
8	85703	106562	SOLUTION TANK, GREY, FOR Box Ext (BACK)
9	85638	115034	MALE QUICK CONNECT
10		115015	1/4" Bar Stock Elbow
11		***	1/4" Fender Washer
12		130098	Support Bar for Handle
13		***	1/4" Spring Lock Washer
Recovery Tank			
1A-Q		440010	Float ASSy. With Bracket
1B	85633	114033	FOAM FILTER (RSH24)
2		221005	1.5" PVC Pipe -13.5" Long
3	85635	112018	VAC INLET EXTERNAL THICK SEALING GASKET (RSH27)
4		106026	90 1.5"PVC Female Elbow
5		106031	1.5" PVC Male Adapter
6		***	10/32 X 1/2 Stainless Steel Screw
7		113037	Black Knob
8	85705	112002	LID GASKET - 27"
9		106003	Plexiglass Lid
10		24009	1.5" PVC Ring
11		113016	Front Handle
12	85704	106563	RECOVERY TANK, GREY, FOR Box Ext. (FRONT)
13		106563	Recovery Tank
14		***	1/4-20 X 3/4" Stainless Steel Bolt
15		***	Not In Use
16	85630	106016	SOLUTION TANK DUMP VALVE (DXC2030)
17		***	10-32 x 3/8" PHS
18		***	Keeper For 00440201 Latch
19		106025	1.5" PVC Female Adapter
20		***	1/4-20 SS Nut
21		***	1/4" SS Fender Washer
22	85634	106018	PVC DRAIN ELBOW (DXC2031)
23		106031	1.5" Hse Barb Fitting
24		103074	17" Cable Vinyl Cover
24A		101136	Crimp . 2 each
General			
	85539	104002	HiPerform 2 STAGE VAC MOTOR - 115 VOLT
	85540	104003	3 STAGE VACUUM MOTOR - 115 VOLT (XLL2071)
	85541	104008	2 STAGE PERF. DISCHARGE VAC MOTOR 115 & 230 VOLT
	85542	104027	3 STAGE HI PERFORMANCE VAC MOTOR
	85728	113017	FLOOR TOOL VALVE LEVER (WND2116)
	85640	114030	VACUUM FILTER SCREEN (RSH19)
	85732	115016	45 DEGREE BRASS ELBOW (RBR18)
	85734	115017	MALE HOSE BARB - 1/4" X 1/4" (RBR19)
	85736	115021	FEMALE HOSE BARB - 1/4" X 1/4" (RBR27)
	85737	115025	FEMALE HOSE BARB - 3/8" X 1/4" (RBR24)
	85715	115032	BRASS SPRAY JET - 9503 (RBR29) (DUAL)
	85716	115033	BRASS SPRAY JET - 9508 (RBR30) (SINGLE)
	85725	115036	K VALVE FOR FLOOR AND HAND TOOL (DX2099)
	85726	115037	HAND TOOL K VALVE LEVER (RBR38)
	85717	115056	BRASS SPRAY JET - 11003
	85718	115057	BRASS SPRAY JET - 11008
	85729	121006	WAND HANDLE HAND GRIP (WND2096)
	85632	321002	FLOAT ASSEMBLY & BRACKET (CJY04)
	85617	340001	J-1200 LID ASSEMBLY
	85727	400089	FLOOR TOOL VALVE CLAMP ASSEMBLY(WND2091)
	85701	400090	REPLACEMENT LATCH, BODY TO CHASSIS
	85702	400091	BUTTERFLY LATCH AND KEEPER, POWER MODULE
	85516	601301	17' Vac & Solution Hose Assembly
	85517	105008	17' Vac Hose
	85518	105014	17' Solution Hose
	85519	601110	12" Stainless Steel Wand
	85523	115068	3" Hand Tool Assembly

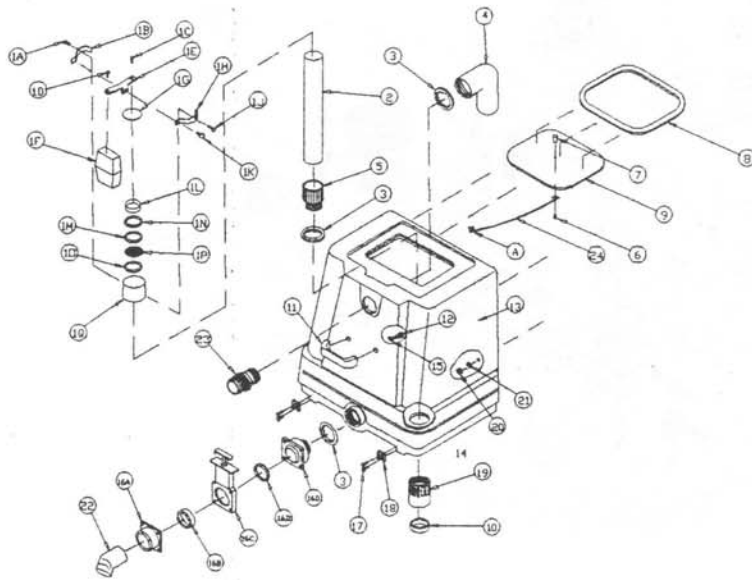
POWER MODULE



SCHEMATIC

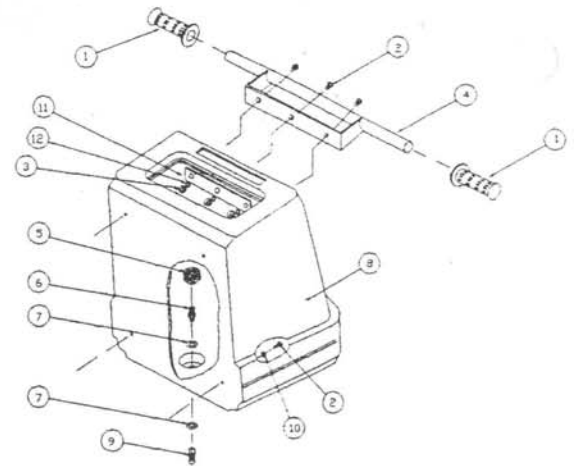


RECOVERY TANK

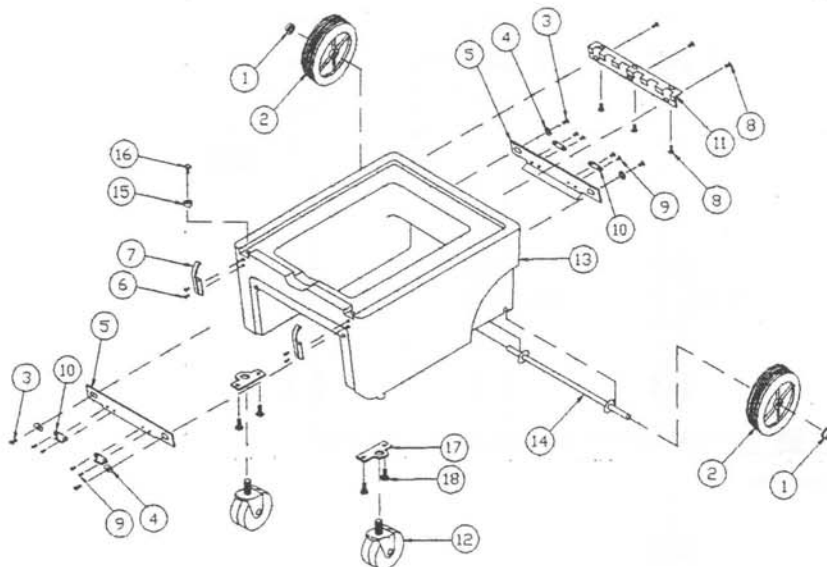


NOTE:
"A" MOUNTS TO BOLT HOLDING RECOVERY TANK TO
SOLUTION TANK.

SOLUTION TANK

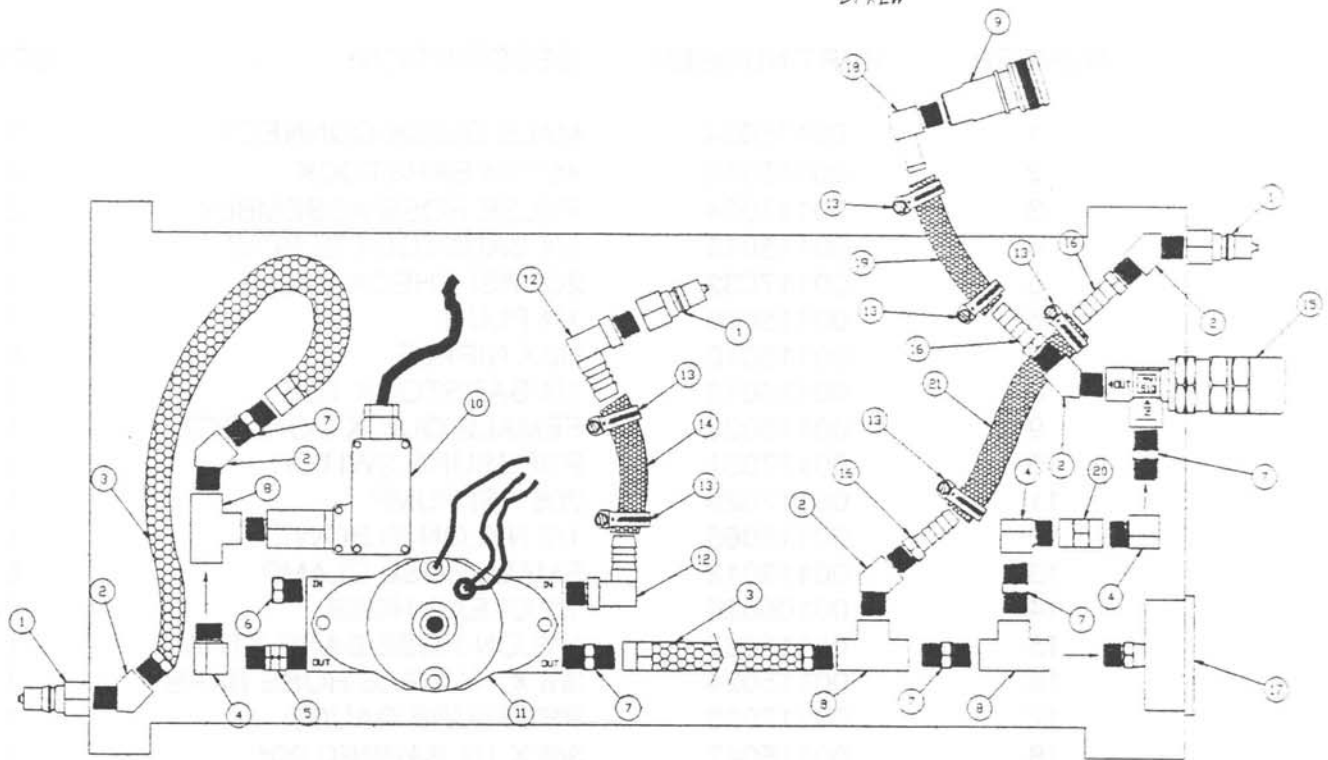


CHASSIS

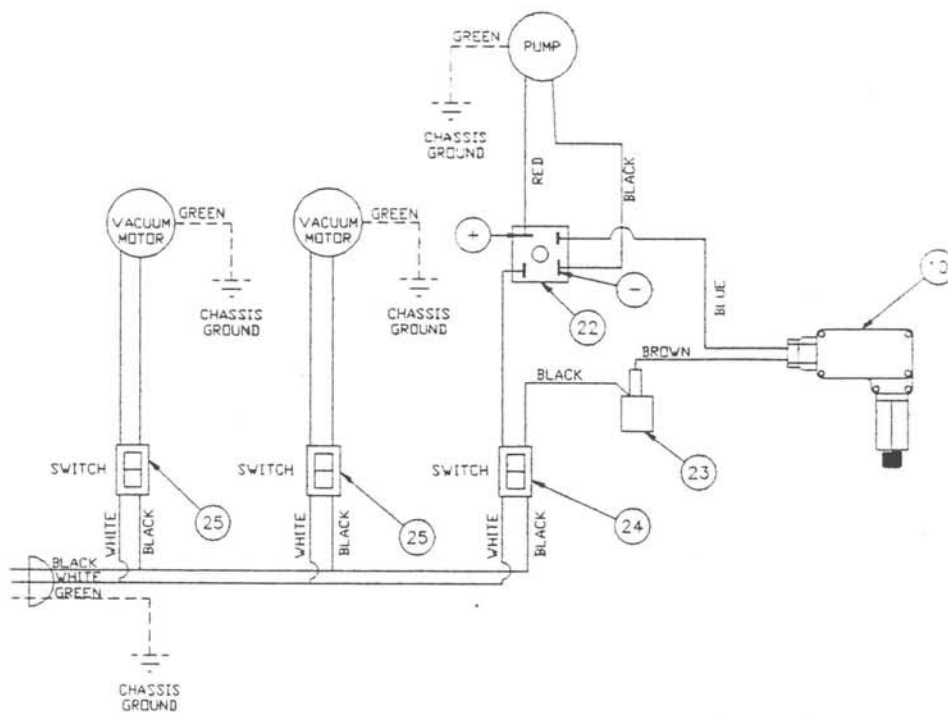


205 PSI PUMPING DIAGRAM

11-5-55
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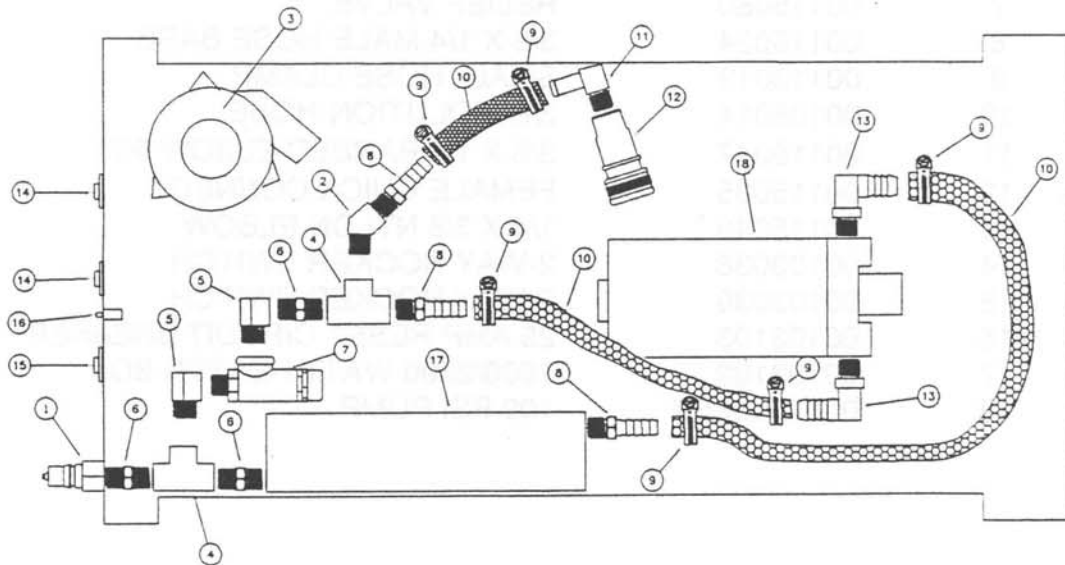
205 PSI WIRING DIAGRAM



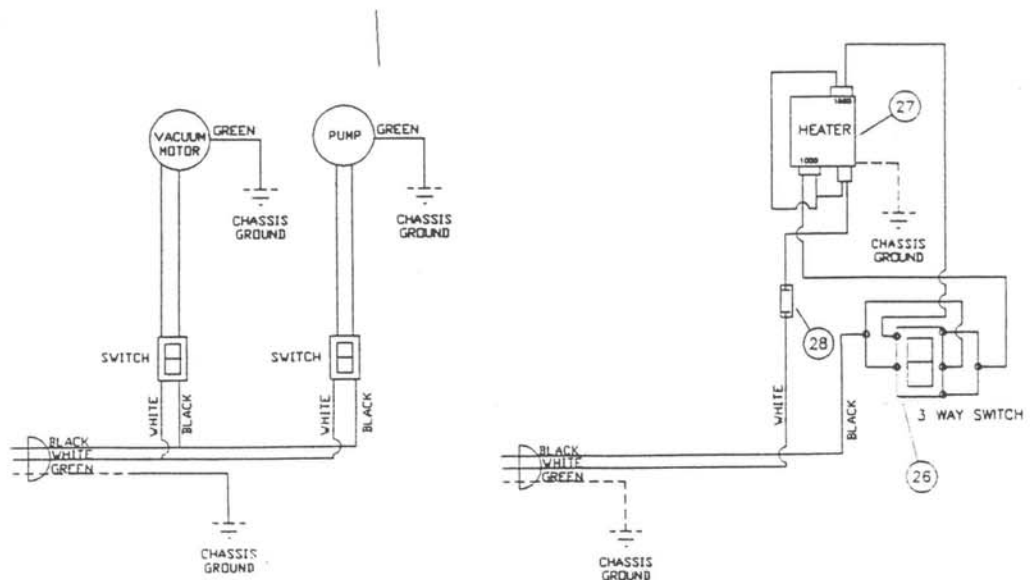
NUMBER	PART NUMBER	DESCRIPTION	QTY.
1	00115034	MALE QUICK CONNECT	3
2	00115016	45° 1/4 BARSTOCK	4
3	00117034	PULSE HOSE ASSEMBLY	2
4	00115015	1/4 BARSTOCK ELBOW	3
5	00117032	205 PSI CHECK VALVE	1
6	00115066	1/4 PLUG	1
7	00115010	HEX NIPPLE	6
8	00115013	1/4 BARSTOCK TEE	3
9	00115035	FEMALE QUICK CONNECT	1
10	00117031	PRESSURE SWITCH	1
11	00117029	205 PSI PUMP	1
12	00115065	1/2 NYLON ELBOW	1
13	00113012	SMALL HOSE CLAMP	6
14	00105026	1/2 CLEAR HOSE	8-1/4"
15	00115067	NYLON HOSE BARB STRAIT	1
16	00115024	3/8 X 1/4 MALE HOSE BARB	3
17	00117033	PRESSURE GAUGE	1
18	00115047	3/8 X 1/4 BARBED 90°	1
19	00105014	3/8 SOLUTION HOSE	14"
20	00115011	1/4 COUPLING	1
21	00105014	3/8 SOLUTION HOSE	5"
22	00103037	RECTIFIER	1
23	00103100	IN LINE FUSE HOLDER	1
24	00103038	2-WAY ROCKER SWITCH	3

HEATED 100 PSI PLUMBING DIAGRAM

7-10-96
DY KEM



HEATED 100 PSI WIRING DIAGRAM



NUMBER	PART NUMBER	DESCRIPTION	QTY.
1	00115034	MALE QUICK CONNECT	1
2	00115016	1/4 BARSTOCK 45° ELBOW	1
3	00104027	3 STAGE HI PRO VAC MOTOR	1
4	00115013	1/4 BARSTOCK TEE	1
5	00115015	1/4 BARSTOCK ELBOW	2
6	00115010	1/4 HEX NIPPLE	3
7	00115080	RELIEF VALVE	1
8	00115024	3/8 X 1/4 MALE HOSE BARB	3
9	00113012	SMALL HOSE CLAMP	6
10	00105014	3/8" SOLUTION HOSE	3 PCS.
11	00115047	3/8 X 1/4 BARBED ELBOW 90°	1
12	00115035	FEMALE QUICK CONNECT	1
13	00115046	1/4 X 3/8 NYLON ELBOW	2
14	00103038	2-WAY ROCKER SWITCH	2
15	00103039	3-WAY ROCKER SWITCH	1
16	00103103	25 AMP RESET CIRCUIT BREAKER	1
17	00103102	1500/2500 WATT HEATER BOX	1
18	00117002SV	100 PSI PUMP	1



Operator Manual - EX13100 EX13205 EX13100H

INTRODUCTION

This manual will help you get the most from your Betco Extractor . Read it thoroughly before operating.

The Betco Extractor is intended for commercial use.

PARTS & SERVICE:

Contact your BETCO AUTHORIZED DISTRIBUTOR for repair parts or service. Please specify the Model & Serial Number when discussing your machine.

NAME PLATE:

The Model & Serial Number of your machine is located on the Name Plate on the frame assembly. This information is often needed when ordering repair parts for the machine.

IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic precautions should always be followed, including the following:
Read all instructions before using.

! WARNING !

To reduce risk of fire, electric shock, or injury:

- * Do not leave the machine when it is plugged in. Unplug the unit from the outlet when not in use & before servicing.
- * To avoid electric shock, do not expose machine to rain. Store indoors.
- * Do not allow to be used as a toy. Close attention is necessary when used by or near children.
- * Use only as described in this manual. Use only manufacturer's recommended attachments.
- * Do not use with damaged cord or plug. If machine is not working as it should return it to a service center for inspection.
- * Do not pull or carry by cord, use cord as a handle, close a door on a cord, or pull cord around sharp edges or corners. Do not run machine over cord. Keep cord away from heated surfaces.
- * Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
- * Do not handle plug or machine with wet hands.
- * Do not put any foreign object into openings. Do not use with any opening blocked; keep free of dust, lint, hair, & anything that may reduce air flow.
- * Keep hair, loose clothing, fingers, & all parts of body away from openings & moving parts.
- * Turn off all controls before unplugging.
- * Do not use in or around flammable or combustible liquids such as gasoline or use in areas where they may be present.
- * Connect to a properly grounded outlet only. See grounding instructions.

GROUNDING INSTRUCTIONS

This machine must be grounded. If it should electrically malfunction, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This machine is equipped with a cord having an equipment-grounding conductor & grounding plug. The plug must be plugged into an appropriate outlet that is properly installed & grounded in accordance with all local codes & ordinances.

! DANGER !

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 machine. If plug will not fit the outlet, have a proper outlet installed by a qualified electrician.

Replace the plug if the grounding pin is damaged or broken.

Extension cords connected to this machine should be 12 gauge, 3-wire cords with 3-prong plugs & outlets. DO NOT use extension cords more than 50 feet long.

PREPARING THE MACHINE FOR OPERATION

! WARNING !

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

Unwrap the power cord completely & plug into a properly grounded outlet.

Fill the 13 gallon solution tank with water and the proper dilution of extraction chemical.

Attach one end of the solution & vacuum hose to the 1-1/2 hose connector and brass solution connection located on the front of the EX1300. Attach the other end of the solution & vacuum hose to cleaning wand or tool.

Turn the pump switch to the on position. The lever on the cleaning wand or tool will dispense solution through the spray jet when depressed.

Turn on the vacuum switches.

You are now ready to begin your cleaning task. Always overlap cleaning passes to avoid streaking. A second vacuum only pass is recommended to remove maximum solution from the carpet.

Turn pump switch off immediately when solution tank is emptied.

Always empty dirty solution recovery tank before refilling solution tank.

AFTER USE

Unplug the power cord, starting from the machine wrap the power cord onto the head assembly.

Completely empty recovery tank of water and debris. Flush tank and dry with a clean towel.

Remove any remaining solution from solution tank.

Remove and clean spray jets as needed.

Periodically flush system with mild neutralizer to reduce alkaline buildup.

Inspect vacuum and solution hose for leaks.

Clean suction head assembly.

Wipe the entire machine with a clean, damp cloth.

Inspect the machine & all accessories for damage. Perform any required maintenance or repairs before storage.

Store the machine in a clean, dry place above freezing temp.



Thank you for choosing

Floor Care Equipment!