



## Electronic Service Manuals

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# Eagle

The self-contained upright carpet extractor

## Reference Manual

Machine Serial Number:

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# Castex

Castex Industries Inc.  
4240 Blue Star Hwy., Holland, Michigan 49423  
800-253-7871 616-392-6966

**NOTICE:**

DURING SHIPMENT OR HANDLING THE PICK-UP HEAD #38 , PAGE 5, MIGHT PIVOT ONE WAY OR THE OTHER. TO CHECK, PLACE EAGLE ON A LEVEL HARD SURFACE. BE SURE PICK-UP HEAD TOUCHES FLOOR ALL THE WAY ACROSS (NOT JUST ONE END). IF HEAD IS PIVOTED, TWIST HEAD TO PROPER POSITION.

**A. SET UP AND OPERATION:**

(Numbers refer to drawing on this page and to parts diagram on pages 3 and 5.)

1. Fill the clean water tank (7 gallons capacity) with hot water and the proper amount of CASTEX Cleaning Agent. Always mix powder chemicals in the filling bucket - DO NOT MIX POWDER CHEMICALS IN THE MACHINE! Pump damage (not covered by warranty) will result.

**WARNING:**

Use a clean bucket to fill the machine. Empty dirty water into another bucket. Always be certain to use SEPARATE BUCKETS to fill and empty machine. Perfectly clean water must be in the clean water tank to avoid fouling the internal system.

2. Plug the Eagle into a grounded outlet. DO NOT OPERATE THE MACHINE WITHOUT A GROUND PIN! The plug is necessary to avoid an electrical hazard.
3. Turn on the vacuum switch.
4. To operate, push on switch marked "pump intermittent" while rolling the machine backwards or toward you approximately 4 feet at a time. Then push down on the handle rolling machine to the next area to be cleaned overlapping approximately 2 inches. For best results, while cleaning lift up slightly on Eagle handle transferring machine weight to pick-up head resulting in maximum water removal. The speed you roll the machine back will depend on the soiling of the carpet. The more soiled, the slower you move the Eagle.
5. As the machine is used, dirty solution will begin to fill the discharge tank.

When the solution tank is empty the recovery tank must be emptied. Do not over fill the recovery tank and allow water or foam to go into the screen #75 as damage to vacuum motor (not covered by warranty) will result.

6. To empty the discharge tank, turn the machine off and then position a discharge bucket under the drain valve down spout #65 . Pull the valve T-handle #66 to empty the dirty water. Be certain this valve is closed before continuing operation. To avoid overflowing, empty the recovery tank every time you fill the clean water tank - be sure to use separate buckets!
7. Be certain the standpipe screen at #75 and the clean water filters #13 are kept clean. Just unscrew and rinse to clean the clean water filter. With the machine shut off, remove clear dome at #71 and clean out lint on vacuum intake filter #75 .

**B. AUXILIARY TOOL HOOK-UP:**

1. Remove vacuum hose from recovery dome.
2. Connect the new vacuum hose to recovery dome at #71 and to the auxiliary tool.
3. Connect the solution hose to the machine at #49 and to the auxiliary tool.
4. Move solution control lever to Attachment Use setting. Illustration Fig. 1
5. Turn on vacuum switch.
6. Turn on pump (continuous) switch.
7. Clean as normal.

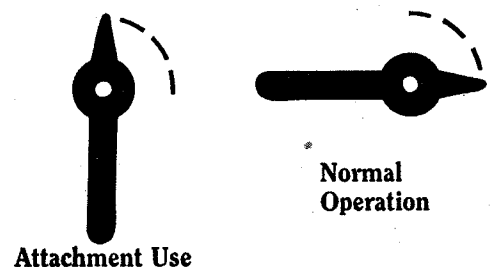


Fig. 1

C. WHEN FINISHED:

1. Disconnect the solution and the vacuum hoses from the floor tool and from the machine.
2. Return solution control lever to normal operation position.

2. Every forty (40) hours of operation run Brown-Ex through the pump and tanks. Pour approximately 2 cups of Brown-Ex along with 2 gallons of water into the clean water tank. Turn on solution pump and let Brown-Ex run through and sit in the system overnight in above freezing temperatures. This dissolves the normal alkaline accumulations in the system.

D. GENERAL SERVICE POLICY:

Whenever ordering parts or requesting any type of service, specify:

1. The model of the machine
2. The serial number of the machine

3. Thoroughly rinse the recovery tank with a hose through the clear dome after every use.

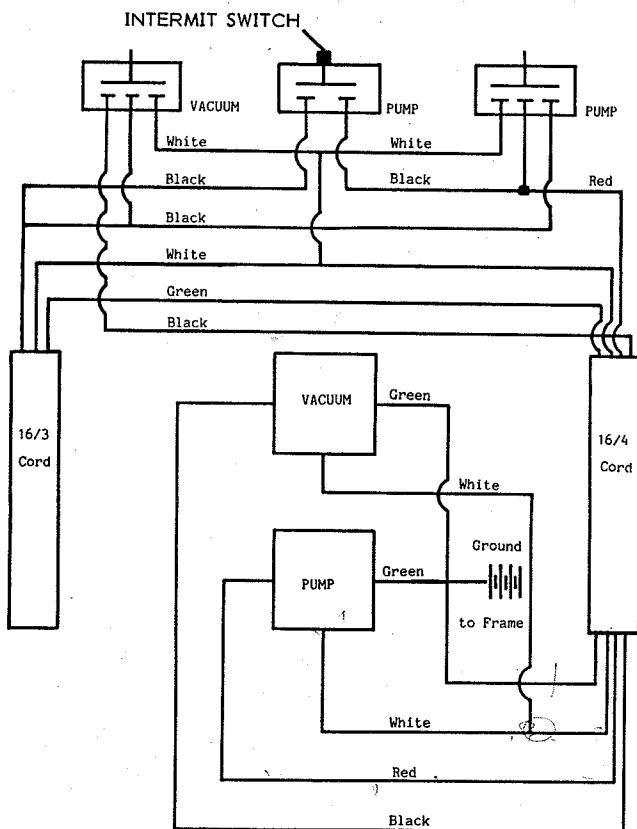
All parts returned to the factory must arrive prepaid with a return authorization number. Always enclose a note indicating the above plus what exactly is wrong with the returned part, your name and your address. Always order parts by part number and description.

**DO NOT ALLOW THE MACHINE TO FREEZE!** If the machine must be stored in freezing temperatures, be sure that the machine, pump and floor tool are completely drained and dry. Pour antifreeze solution in clean water tank (enough to cover screens #13 ) and turn on pump for 30 seconds.

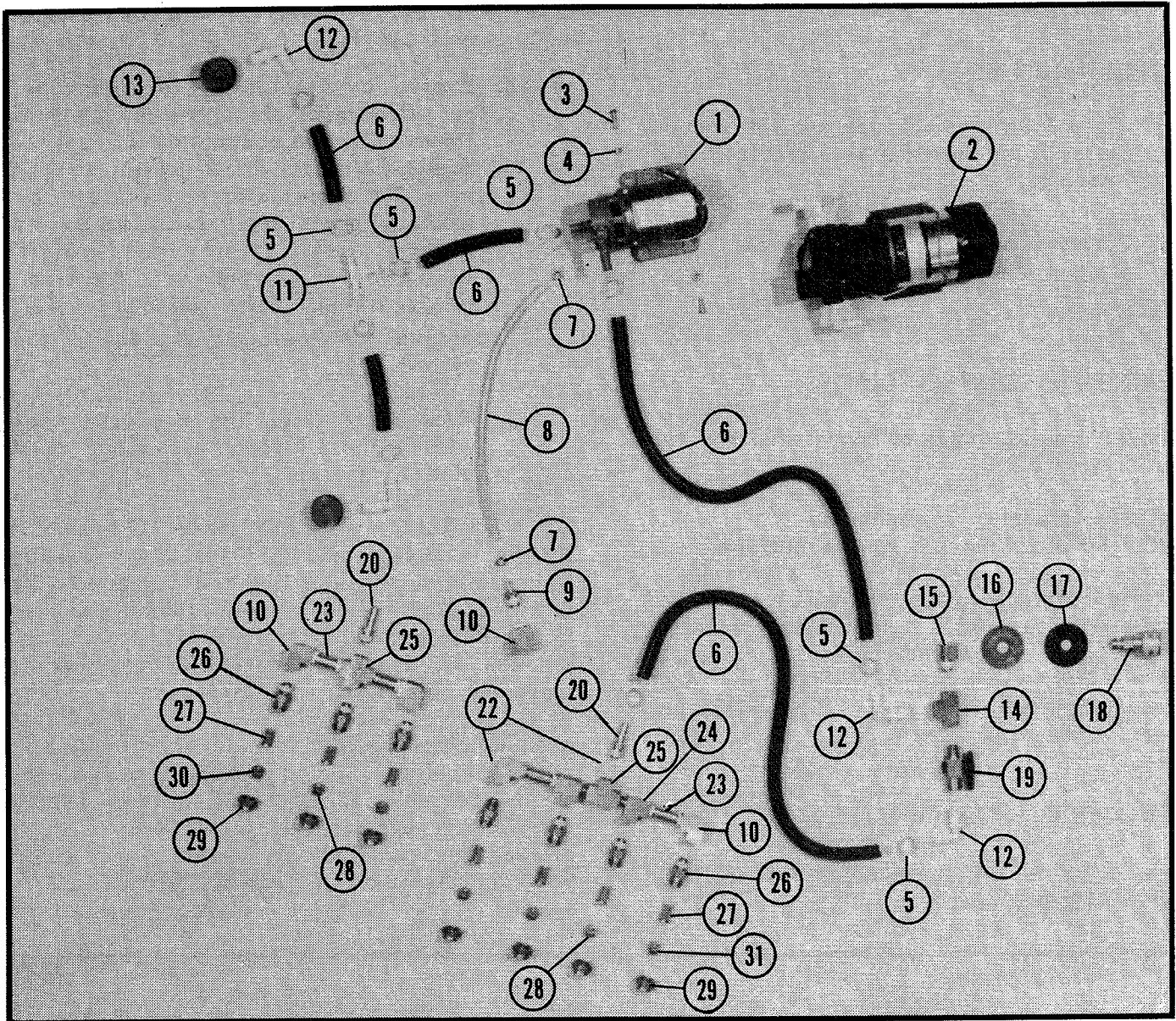
E. SUGGESTED MAINTENANCE:

1. Keep all filters and screens clean (#13, #27 and #75).

Your CASTEX EAGLE is engineered to be easily repaired. Should a problem occur, you should be able to make the proper repairs without an experienced serviceman. If a problem occurs which you cannot solve, contact your distributor or CASTEX INDUSTRIES.



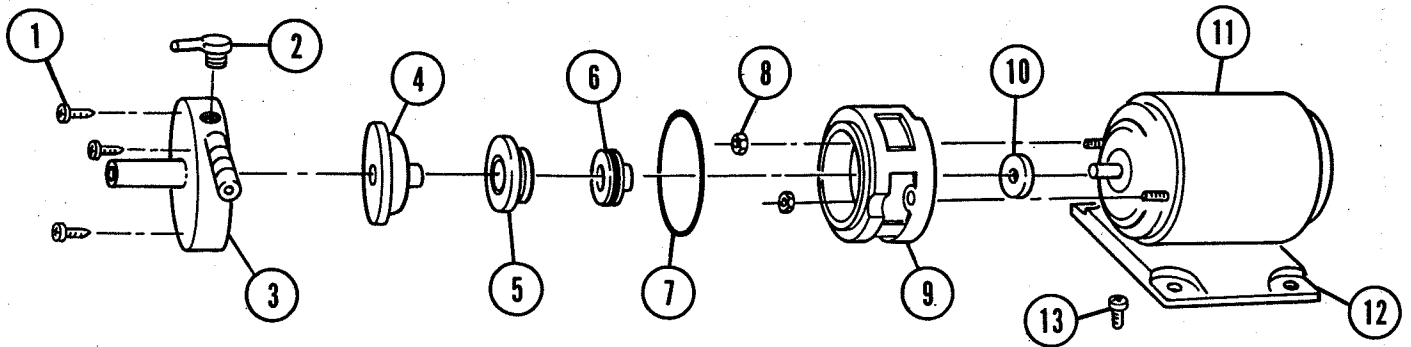
ELECTRICAL SCHEMATIC



### EAGLE PUMP SYSTEM

Code Number	Part Number	Description	Code Number	Part Number	Description
1	180120	Pump oberdorfer 50 psi	18	150920	Quick coupler, disconnect 30 ser.
2	180115	Pump flojet 100 psi	19	140602	Valve
3	140804	10 - 24 x 5/8" screw	20	150511	1/4 - 3/8 hose barb
4	140512	10 - 24 nut	21	200946	12" spray bar assy
5	140301	Clamp, pinch 170	22	200947	16" spray bar assy
6	160201	Hose - 3/8" blk	23	150600	1/4" x 2" nipple, brass
7	140302	Clamp, pinch 8.7	24	150709	Tee, 1/4" - 90° street, brass
8	160215	1/8" braided hose	25	150700	Cross 1/4" extruded, brass
9	150514	1/8" - 1/4 hose barb	26	200993	Spray body male
10	150401	1/4" 90° elbow brass	27	200996	No drip spray nozzle screen
11	150503	Hose barb, tee 3/8" nylon	28	200966	Spray tip inner 95015
12	150415	1/4" x 3/8" I.D. 90° elbow, nylon	29	200994	Spray body cap
13	180628	Suction line strainer	30	200962	Spray tip outer 11004
14	150706	1/4" tee brass	31	200964	Spray tip outer 11003
15	150406	1/4" 90° sr. elbow			
16	140006	1/2" fender washer			
17	140005	1/2" fender washer painted			

## OBERDORFER PUMP - 50 PSI



### Part Description

1. Screw
2. Vent fitting
3. Body
4. Impeller
5. Seal head
6. Seal seat
7. O-ring

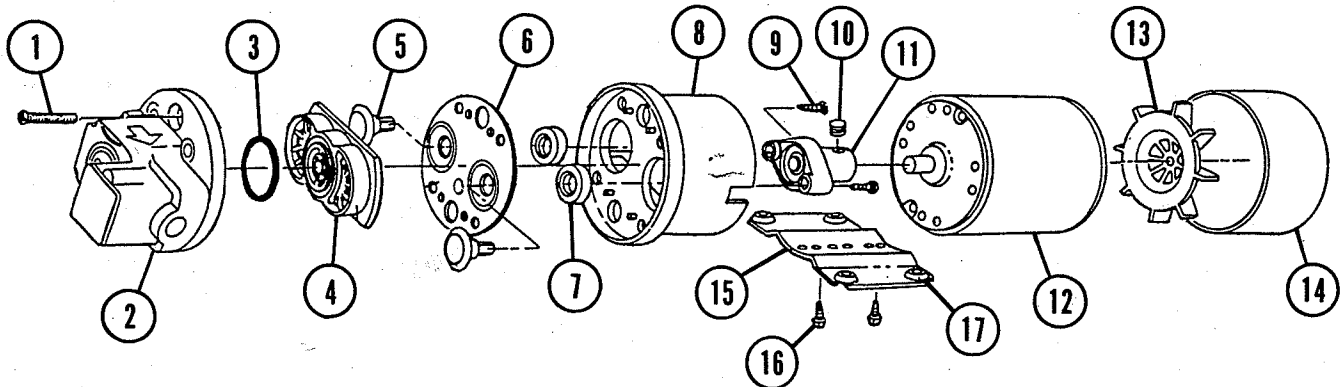
### Part Number

8. Nut
9. Adapter
10. Slinger
11. Motor
12. Base plate
13. Base plate screw

### Description

- 190500 Service kit  
(includes parts 1 thru 10)
- 190505 Vent fitting  
(includes part 2 only)
- 180120 Oberdorfer pump 50 psi  
(complete)

## FLOJET PUMP - 100 PSI



### Part Description

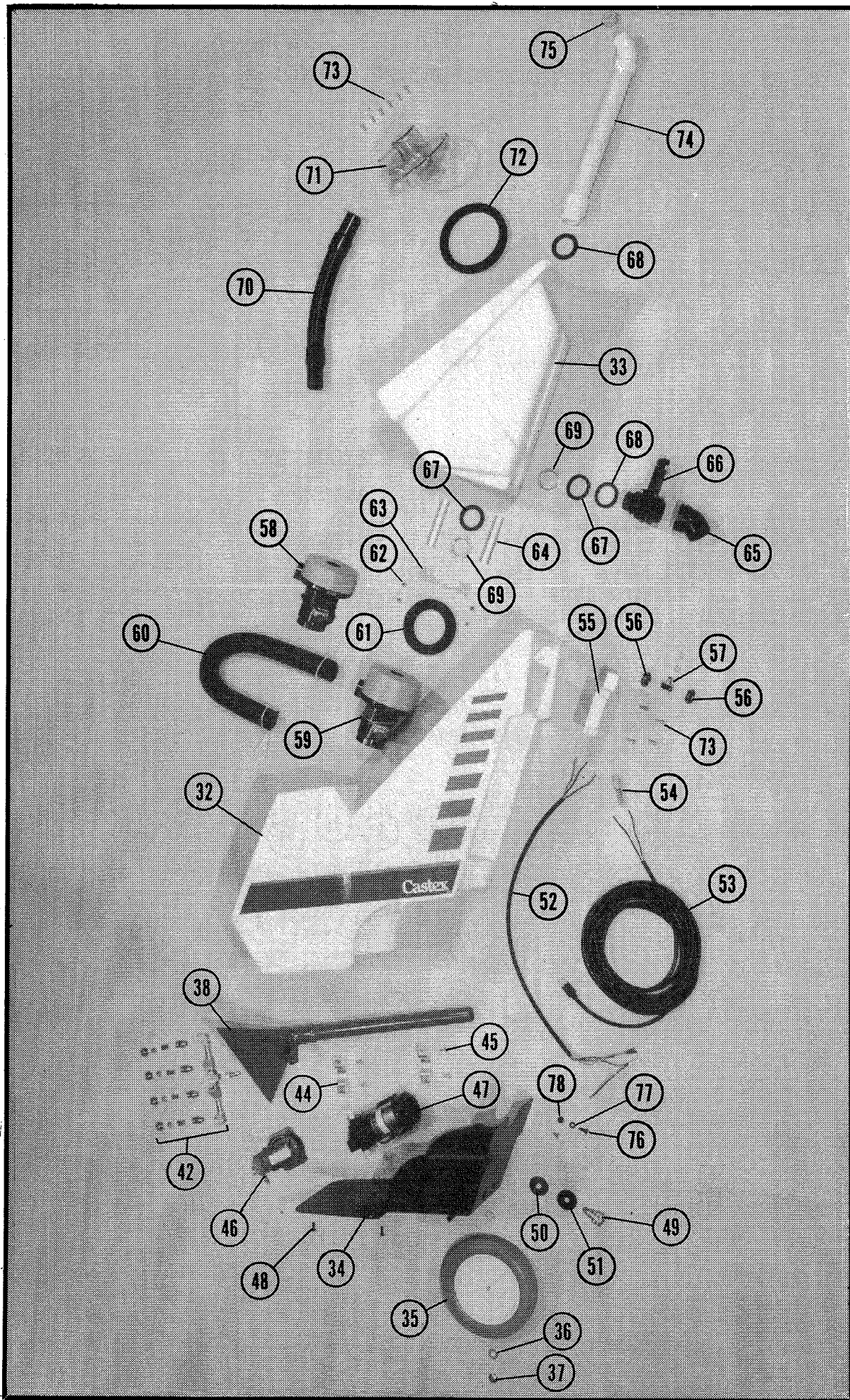
1. Pump screw
2. Upper housing assy.
3. Gasket
4. Check valve
5. Inner piston (2)
6. Diaphragm
7. Outer piston
8. Bearing cover

### Part Number

9. Cam/bearing screw (2)
10. Cam/bearing set screw
11. Cam
12. 115 V motor A.C.
13. Fan
14. Shroud
15. Base plate
16. Base plate screws (2)
17. Grommets (4)

### Description

- 190405 Service Kit  
(includes parts 3 thru 7  
and 9 thru 11)
- 190406 Head w/pressure switch  
(includes part 2)
- 190407 Fan, shroud kit  
(includes parts 13, 14)
- 180115 Flojet pump 100 psi  
(complete)



## EAGLE PARTS LIST

<u>Code Number</u>	<u>Part Number</u>	<u>Description</u>	<u>Code Number</u>	<u>Part Number</u>	<u>Description</u>
32	100610	Chassis, Eagle	55	130308	Switch box, rotomold
33	100609	Recovery tank	56	130711	Switch, lighted rocker
34	100725	Frame	57	130712	Switch, pulse momentary
35	103025	Wheels, 10"			
36	140009	Washer 1/2" SAE	58	130415	Vacuum, motor 2 stage
37	103019	Hub caps	59	130416	Vacuum, motor 3 stage
38	200440	16" pick-up head w/18" tube	60	160441	Hose
			61	100038	Vac motor gasket
39	200956	Shoe 5.5 16" (not shown)	62	140501	Nuts 1/4" - 20 nylok (4)
40	200440	12" pick-up head w/18" tube (not shown)	63	230237	Bracket, support for vacuum
41	200939	Shoe 5.5 12" (not shown)	64	140238	Studs 1/4" x 20 x 5
			65	210232	Elbow - drain
42	200946	12" spray bar	66	210231	Valve - drain
43	200947	16" spray bar (not shown)	67	210234	Drain - gasket
44	140313	Clamps (2)	68	101714	Waste chamber gasket
45	140229	1/4" - 20 x 3/4"	69	210240	Drain valve nut
46	180120	Pump, oberdorfer 50 psi	70	160421	Hose, vacuum intake 14" w/cuff
47	180115	Pump, flojet 100 psi	71	100112	Dome
48	140215	Bolts - 1/4" - 20 x 3/4"	72	100042	Gasket
			73	140870	Screws 1/4" - 20 x 3/4" RH Phillips
49	150920	Disconnect - quick 30 series	74	230185	Stand pipe 1 1/2" x 18"
50	140006	Washer fender 1/2"			
51	140005	Washer fender 1/2" painted	75	100006	Screen
			76	140229	1/4 - 20 x 3/4 Hex HD screw
52	130218	Wire 27" 16/4			
53	130216	Cord 35' x 16/3	77	181131	Grommet
54	130137	Cord grips	78	140510	1/4 - 20 Washer

### TROUBLESHOOTING

<u>Problem</u>	<u>Cause</u>	<u>Solution</u>
Uneven or no spray from jets	1. Remote tool valve in improper position. (Located between rear wheels)	1. Correct valve position
	2. Dirty or plugged spray tips	2. Clean or replace tips
	3. Improper size tips or improper degree of spray angle	3. Replace with proper tips
	4. Worn spray tips	4. Replace spray tips
	5. Check valve in spray tip screen faulty	5. Replace spray tip screen
Loss of vacuum	1. Drain valve #9 open	1. Close drain valve

- |  |   |
|--|---|
| 2. Lint on top of stand pipe #5  | 2. Remove lint trap lid and clean screen  |
| 3. Leaking around recovery dome  | 3. Replace recovery dome gasket   |
| 4. Holes in vacuum hose  | 4. Replace hose   |
| 5. Excess foam in vacuum recovery tank                                   | 5. Remove lower portion of vacuum hose # 60 and with vacuum running, pour 2-4 oz. of antifoam into hose |
| 6. Bad vacuum motor  | 6. Replace vacuum motor   |
| 7. Blades let loose in motor cage - caused by water going through vacuum | 7. Replace vacuum motor   |

- |                   |                                   |  |
|-------------------|-----------------------------------|--|
| Drain valve leaks | 1. Drain valve gaskets #11 worn   | 1. Replace gaskets                       |
|                   | 2. Lint or dirt in drain valve #9 | 2. Remove and clean, may need to replace |

- |                              |  |                                  |
|------------------------------|--|----------------------------------|
| * Solution pump will not run | 1. Fuse blown or circuit breaker popped in building (there are no circuit breakers in machine) | 1. Replace fuse or reset breaker |
|                              | 2. Faulty on/off switch  | 2. Replace switch                |
|                              | 3. Loose wiring  | 3. Trace and repair              |
|                              | 4. Solution pump motor faulty  | 4. Replace solution pump         |

- |  |                                    |                       |
|--|------------------------------------|-----------------------|
| Solution pump runs but no solution comes out of spray nozzle | 1. Spray tips plugged              | 1. Remove and clean   |
|  | 2. Spray nozzle screen #27 plugged | 2. Remove and clean   |
|  | 3. Faulty pump                     | 3. Rebuild or replace |

- |                     |                        |                       |
|---------------------|------------------------|-----------------------|
| Solution pump leaks | 1. Faulty seal in pump | 1. Replace pump seals |
|                     | 2. Faulty pump         | 2. Replace pump       |

\* When the "continuous" switch on the Eagle high pressure is activated and water is not spraying out of the jets (solution control lever in auxiliary setting) and water is not flowing out of the auxiliary tool (valve not depressed), the pump will shut off automatically. It will turn on again when water is flowing.