



Electronic Service Manuals

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Serving the Cleaning Industry Since 1922

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CASTEX INDUSTRIES, INC.
4240 BLUE STAR HWY
HOLLAND, MICH. 49423
616-392-6966

CASTEX

CARPET EXTRACTOR

MODEL 1700 CYCLOMATIC

GENERAL SERVICE POLICY:

When service is required on the machine, there are some important items that should be known by either your distributor or the factory.

Whenever ordering parts or requesting any type of service, specify (a) the model of machine you have (b) the serial number of the machine (c) the size wand you are using.

Whenever returning any parts to the factory, always enclose a note indicating the above plus what exactly is wrong with the returned part.

Always order parts by part number and description. Prices on all parts are subject to change without notice.

OPERATING PROCEDURES

TROUBLE SHOOTING

PARTS LIST

WARNING: To avoid electrical shock do not expose to rain. Store indoors.

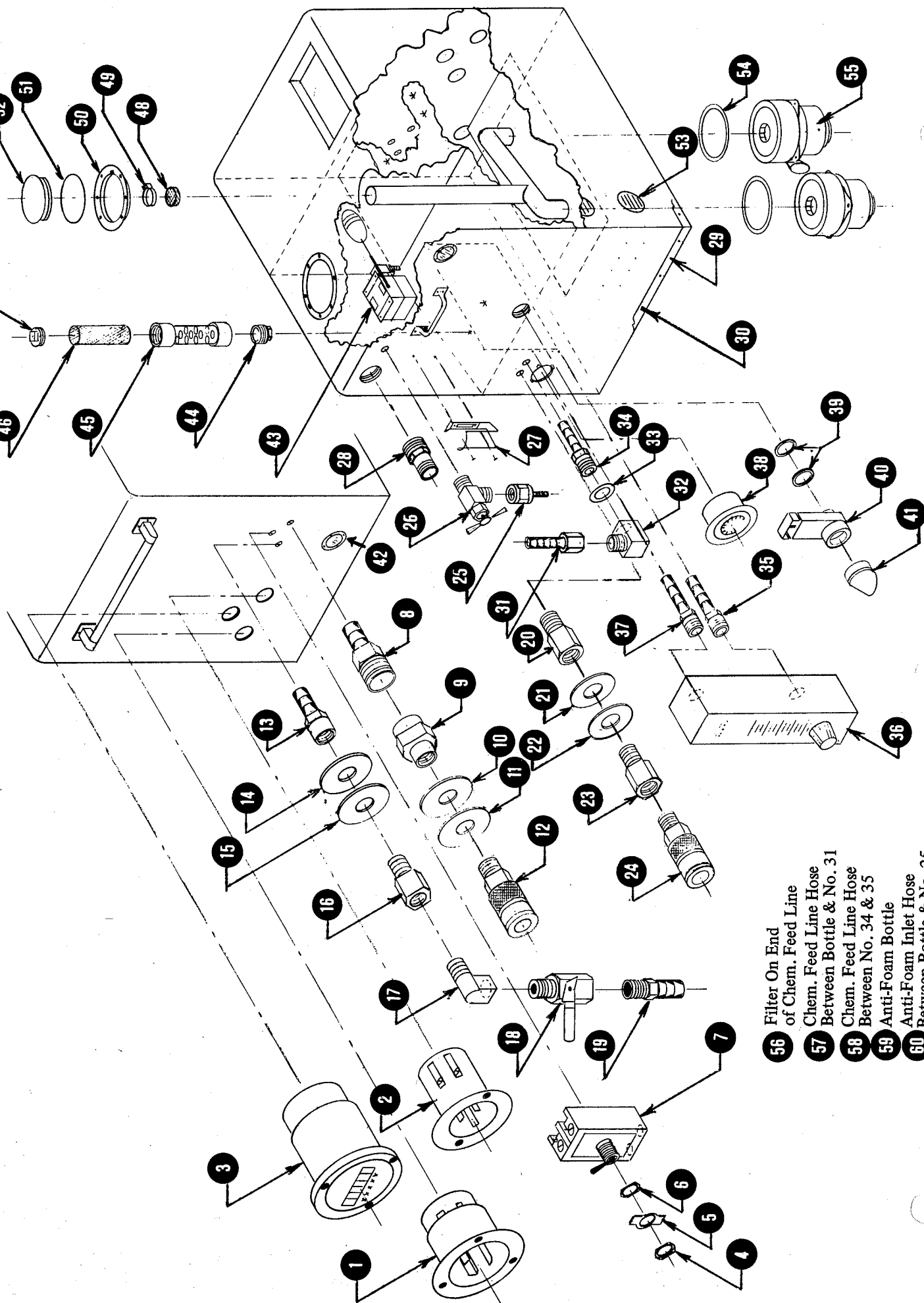
USE ONLY CASTEX CHEMICALS. OTHERS COULD CAUSE DAMAGE TO MACHINE.

MACHINE SERIAL NUMBER _____

OWNERS REFERENCE MANUAL

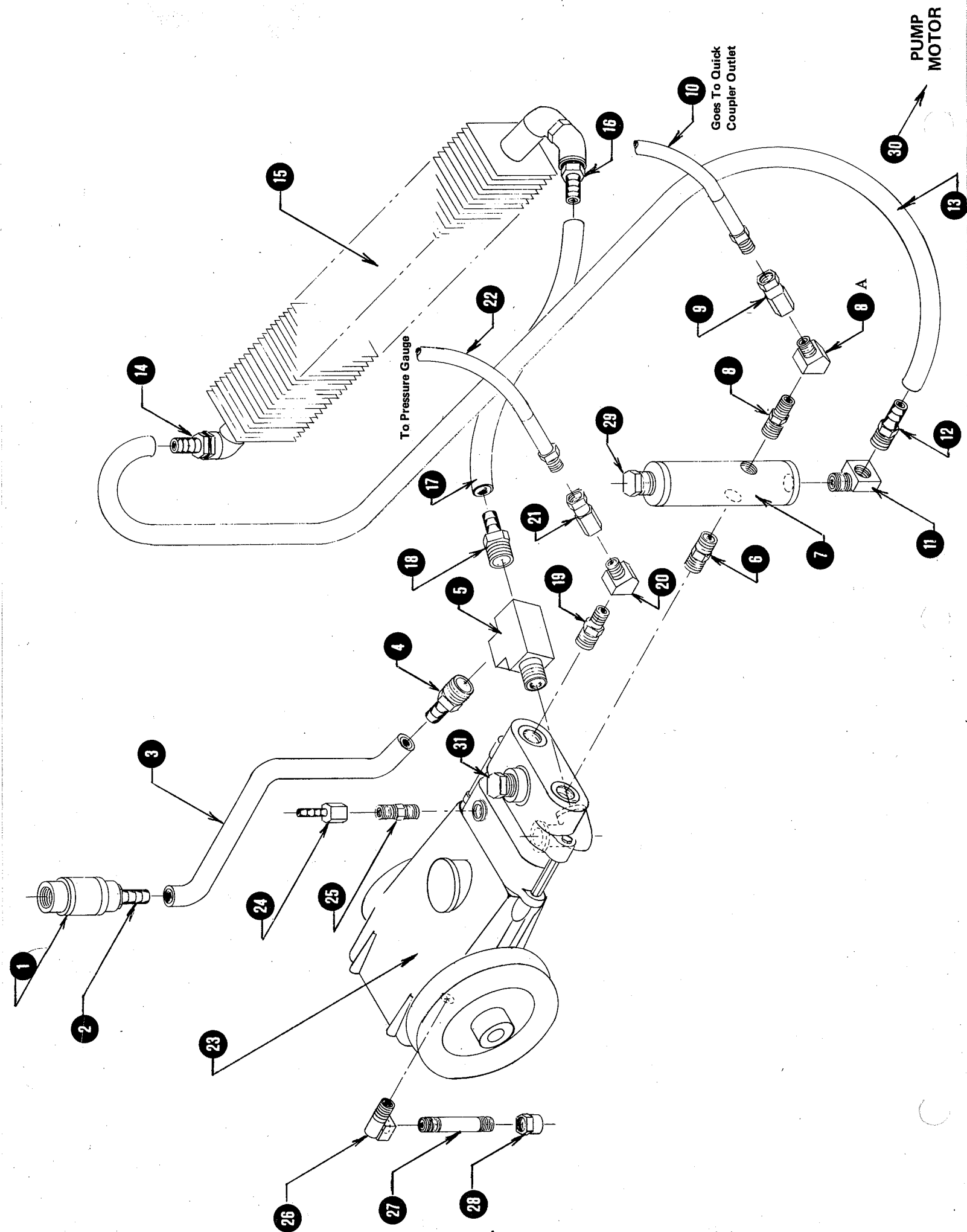
45 A - Complete Filter

52 A - Includes 50, 51 & 52



- 56** Filter On End of Chem. Feed Line
- 57** Chem. Feed Line Hose Between Bottle & No. 31
- 58** Chem. Feed Line Hose Between No. 34 & 35
- 59** Anti-Foam Bottle
- 60** Anti-Foam Inlet Hose Between Bottle & No. 25

CODE	PART NO.	DESCRIPTION	CODE	PART NO.	DESCRIPTION
1	10611	Machine Receptacle - 20 Amp	32	17007	1/8" Street Elbow 90°
2	10610	Machine Receptacle - 15 Amp	33	10316	3/8" Flat Washer
3	10617	Hour Meter	34	17008	1/4 x 1/8 Hose Barb (M)
4	10615	Switch Lock Nut	35	17008	1/4 x 1/8 Hose Barb (M)
5	10620	On/Off Switch Plate	36	17009	Chemical Flo Meter
6	10615	Switch Lock Nut	37	17008	1/4 x 1/8 Hose Barb (M)
7	10613	Switch (H.D.)	38	17010	Pressure Gauge (Flush Mount)
8	10427	1/2 x 1/2 Hose Barb (M)	39	10111	Drain Valve Gasket
9	17019	1/2F x 1/4F Adapter	40	10112	Drain Valve
10	10317	Fender Washer (Regular)	41	17011	Drain Valve Down Spout For 1700
11	10316	Fender Washer (Painted)	42	10103	Sight Glass-Oil Inspection
12	10315	Quick Coupler	43	10621	Vac Blower Shutoff Switch
13	10314	3/8 x 1/4 Hose Barb (F)	44	17002	Adapter 1 1/2M x 1/2F
14	10317	1/2" Flat Washer (Regular)	45	17003	Filter Case
15	10316	1/2" Flat Washer (Painted)	45A	17003	Waste System Filter
16	10419	1/4 x 1/4 Adapter	46	17004	Waste Filter Screen
17	10732	1/4" Street Elbow 90°	47	17005	Waste Filter Cap
18	17020	1/4" Special Ball Valve	48	10108	Stand Pipe Screen
19	10421	3/8 x 1/4 Hose Barb (M)	49	10109	2" Snapper Clamp
20	10419	1/4 x 1/4 Adapter	50	10107	Lint Trap Lid Outer Ring
21	10317	1/2" Flat Washer (Regular)	51	10106	Lint Trap Lid "O" Ring
22	10316	1/2" Flat Washer (Painted)	52	10105	Lint Trap Lid
23	10419	1/4 x 1/4 Adapter	52A	10105C	Lint Trap Lid Assembly Complete
24	10315	Quick Coupler	53	10120	3" Vent
25	17021	1/8 x 1/8 Hose Barb (F)	54	10501	Vacuum Blower Gasket
26	17022	"L" Shut Off Valve 1/8" x 1/8"	55	10504	Vacuum Blower - 3 Stage
27	17017	Anti Foam Bottle Holder	56	17012	1/4" Hose Filter (M) Chem. Feed
28	10116	2" Nylon White Hose Barb	57	17013	Hose Chem Feed Line Between Bottle & No. 31
29	10121	Bumper Rivet	58	17014	Hose Chem Feed Line Between No. 34 & 35
30	10122	Bumper For 1700	59	17016	Anti-Foam Bottle
31	17006	1/4 x 1/8F Hose Barb (F)	60	17018	Anti-Foam Inlet Hose



GENERAL INFORMATION ON THE SOLUTION PUMP SYSTEM:

The water for the pump system comes into the system at No. 1. Prior to the water coming into No. 1, it goes through the round screen filter located in the bottom of the clean water tank. The water goes into the bottom side of the intake portion of the pump. (The 90° elbow after part No. 5). Going out of the pump from parts 19-22, it goes to the pressure gauge. The pressure gauge is supposed to have liquid in it.

The other side of the discharge side of the pump, the water flows through parts 6-10 out to the quick coupler on the front outside of the machine.

When the trigger on the wand is not pulled, the water flows out of the bottom of the pressure regulator No. 7, out through parts 11-18 and back into the intake side of the pump, i.e., the water circulates.

A most important item in the solution pump system is that air cannot be allowed into the system.

The pressure is adjusted by turning part No. 29, and it should only be turned when water is in the tank, the pump is running, and the wand is not open.

PUMP MAINTENANCE:

You should check the oil in the pump regularly. This is done by looking through No. 42 on page 1. The oil should be ½ full on the sight glass – no more and no less. It is also advisable to change the oil every 3 months. To drain the oil, remove cap No. 28 and let the oil run out, then refill by pouring only CAT oil into the oil fill cap. Also, see the Pump Instruction booklet for further instructions.

The solution pump should provide hundreds of hours of service. The only parts in the pump that may wear out or need replacing are the inlet water seals and the cups. Repair kits are available from CASTEX Industries, CASTEX distributors or any authorized CAT Pump dealers. These pumps are not that complicated to rebuild, refer to the CAT Service Manual and follow instructions closely.

Problems that might occur are pulsations or a big drop in pressure.

If pulsations are the problem, it normally will be that the pump has run dry and the inlet seals need to be replaced. Running dry also causes excessive wear on the cups.

It could also be that foreign objects have accumulated in the pressure regulator. The regulator can easily be taken apart and cleaned out. Be sure that you put it together the same way it was taken apart.

If there is a big pressure drop, it most likely will be that the cups are worn. Then replace the cups. It is not a difficult operation. Also, insure that you have chemical in the bottle.

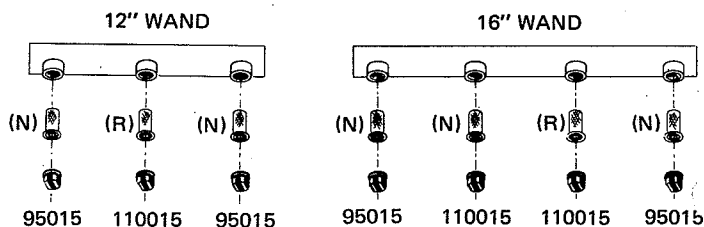
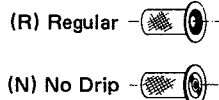
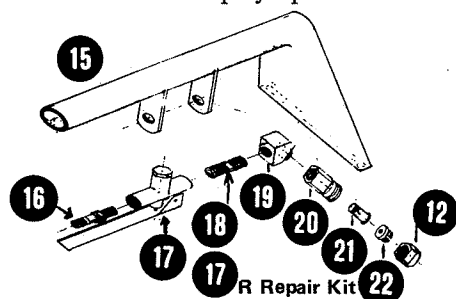
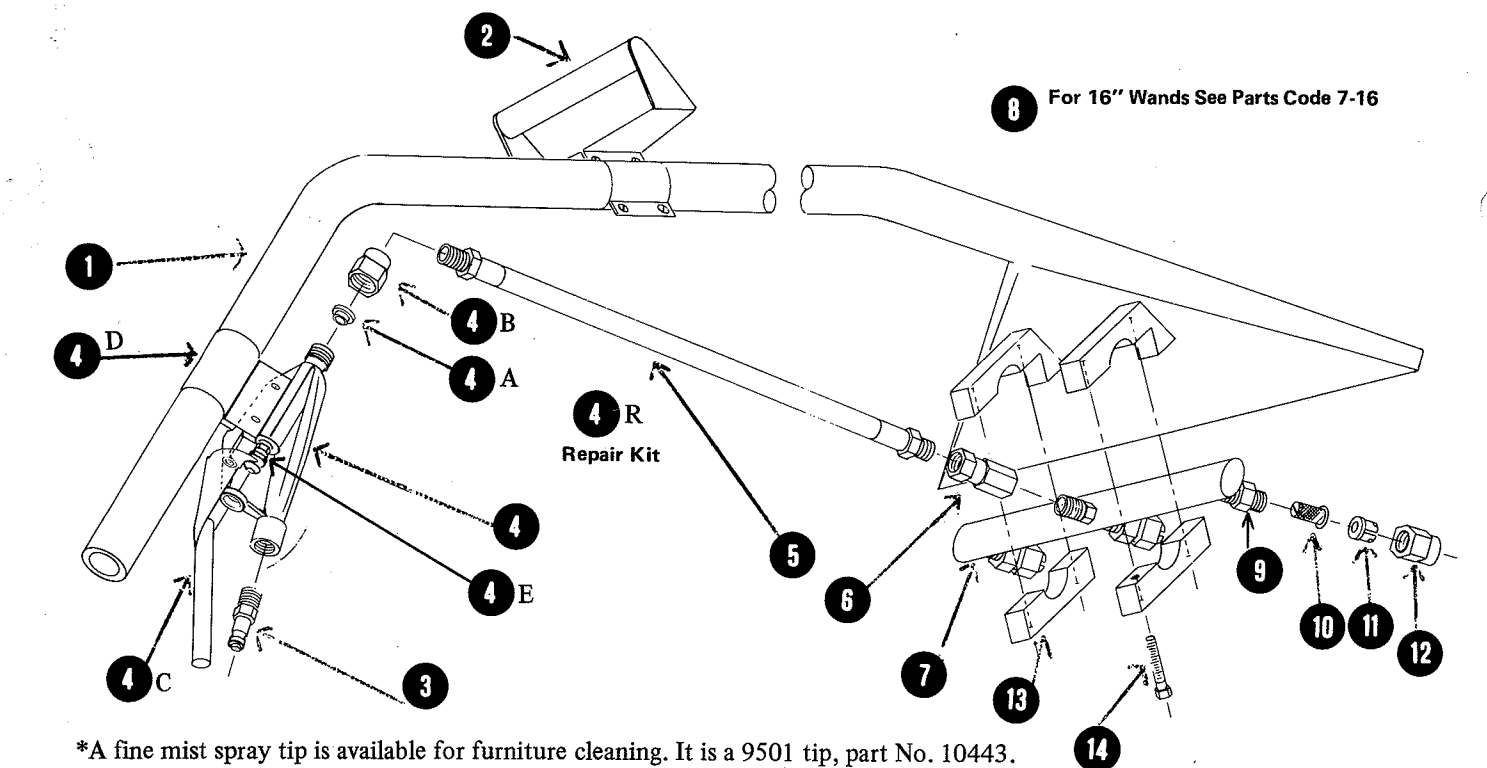
It is advisable that any time you tear the pump apart you should replace the cups.

If you experience a big pressure drop, it could be that you have the wrong size tips in the wand. If you have any question about tip size, contact CASTEX Industries, Inc.

To work on the pump, tip the machine back on its rear and put a 2" spacer (2" x 4" piece of wood) under the big chrome handle in the back of the machine. The pump does not have to be removed to be worked on.

It is recommended that on a minimum weekly basis, you run a "No Brown" solution through the entire system. To do this have clean water in the tank, throw a few ounces of "No Brown" in the tank. Then remove the chemical feed line and suck "No Brown" in through the chemical feed line for approximately 5 minutes. Have the wand hooked up to the machine and let the solution run through the machine and out of the wand. By doing this, it will prevent an alkaline buildup in the pump system.

CODE	PART NO.	DESCRIPTION
1	17031	1/2" Check Valve
2	10427	1/2 x 1/2 Hose Barb (M)
3	17032	1/2" Pump Feed Hose
4	10427	1/2 x 1/2 Hose Barb (M)
5	10426	1/2" Tee
6	10418	3/8" Hex Nipple
7	17033	Pressure Regulator (CAT)
8	10417	3/8 x 1/4 Hex Nipple
8A	10453	1/4" 45° Street Elbow
9	17041	1/4" HP Swivel (F-F)
10	17034	1/4" HP Hose w/fittings (Reg. to Coupler)
11	10416	3/8" 90° Street Elbow
12	10415	1/2 x 3/8 Hose Barb (M)
13	17035	1/2" Hose (Regular To Cooler Inlet)
14	10427	1/2 x 1/2 Hose Barb (M)
15	17036	Cooler
16	10427	1/2 x 1/2 Hose Barb (M)
17	17037	1/2" Hose Cooler Outlet to Pump Intake
18	10427	1/2 x 1/2 Hose Barb (M)
19	10417	3/8 x 1/4 Hex Nipple
20	10453	1/4" 45° Street Elbow
21	17041	1/4 x 1/4 H.P. Swivel (F-F)
22	17038	1/4" H.P. Hose w/Fittings (Pump to Pressure Gauge)
23	17039	CAT Pump
24	17006	1/4 x 1/4 Hose Barb (F)
25	17042	1/4" Special Check Valve
26	10732	1/4" Street Elbow 90°
27	17043	1/4 x 2-1/2 Nipple
28	17044	1/4" Cap
29		Pressure Regulator Adjustment Nut
30	17040	Pump Motor For 1700
31	17045	1/2" Plug
PUMP REBUILDING PARTS: CAT PUMP		
030431		Sleeve and Seal Kit
030202		Piston Assembly Kit
030024		Discharge Valve Kit
006100		21 oz. CAT Oil
30023		Short Cup Kit
30305		Seal Kit



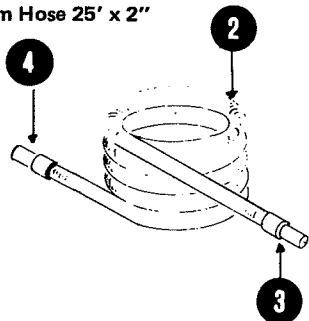
Proper Tip and Screen Filter placement is very important in the solution system of this machine. Above is proper location of each.
 NOTE: The regular screens are put in the wands so that the water can be drained from the wand. If you want a complete no-drip wand, put a no drip screen in place of the regular screen.

Key	Part Number	Description	Key	Part Number	Description
1	10404	Floor Tool - 12" x 1½" High Pressure Complete	14	10438	Spray Bar Bracket Bolt
2	10401	Adjustable Hand Grip	15	10455	1-1/2" Hand Tool Complete 9501 Tip
3	10420	Quick Coupler Plug	16	10420	Quick Coupler Plug
4	10412	H.P. Flow Control Valve Complete	17	10410	Flow Control Valve
4A		Valve Seat	17R	10411	Flow Control Valve Repair Kit
4B		Threaded Reducer	18	10452	1/4" Hex Nipple
4C		Handle	19	10453	45° 1/4" Street Elbow
4D		Flow Control Valve Bracket	20	10454	Female Spray Body
4E		Locking Nut	21	10431	Spray Nozzle Screen (Regular)
4R	10413	Complete Repair Kit	22	10443	Spray Tip 9501
5	10414	Solution Feed Hose For Wand			
6	17041	1/4" Swivel F-F			
7	10433	H.P. Spray Bar for 12" Floor Tool			
7-16	10434	H.P. Spray Bar for 16" Floor Tool			
8	10405	16" x 1-1/2" H.P. Floor Tool Complete			
9	10436	Male Spray Body			
10	10431N	Spray Nozzle Screen (No Drain)			
10A	10431	Spray Nozzle Screen (Regular)			
11	10447	Spray Tip 95015			
11A	10448	Spray Tip 110015			
12	10432	Spray Body Cap			
13	10437	Spray Bar Bracket			

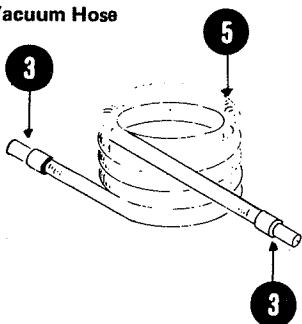
NOTE:

- When taking wand apart, first disconnect between No. 5 and 6 by putting wrenches on both the top part of No. 6 and the bottom of No. 5. This is a swivel fitting and 2 wrenches must be used.
- Always insure you put part 4A in the correct direction — as it is shown.
- If you have a leak in the flow control valve (No. 4), tighten nut (4E). Always insure that the rod pulls evenly through the nut (4E) when engaging the handle. The rod must not pull in an upward direction. The stroke is determined by the locking nut and screw on the end of the rod.

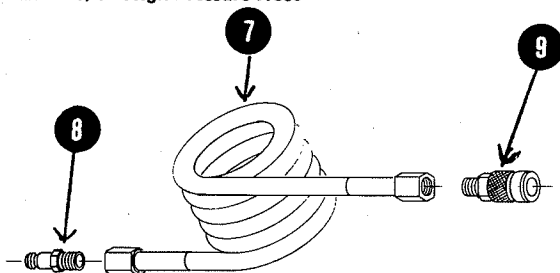
1
Vacuum Hose 25' x 2"



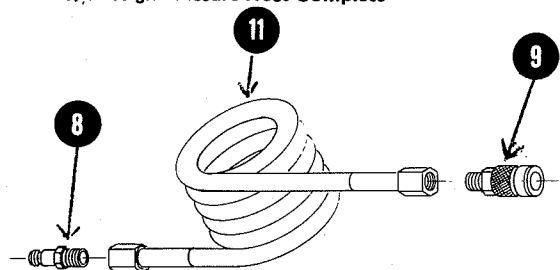
6
50' x 2" Vacuum Hose



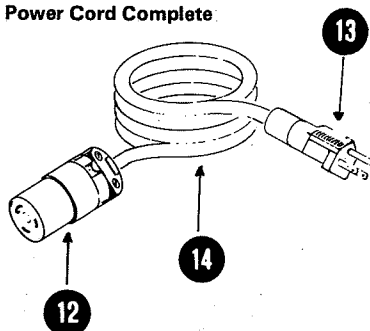
7 C
25' x 1/4" High Pressure Hose



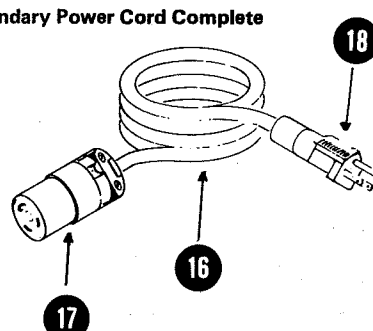
10
50' x 1/4" High Pressure Hose Complete



15
Primary Power Cord Complete



19
Secondary Power Cord Complete



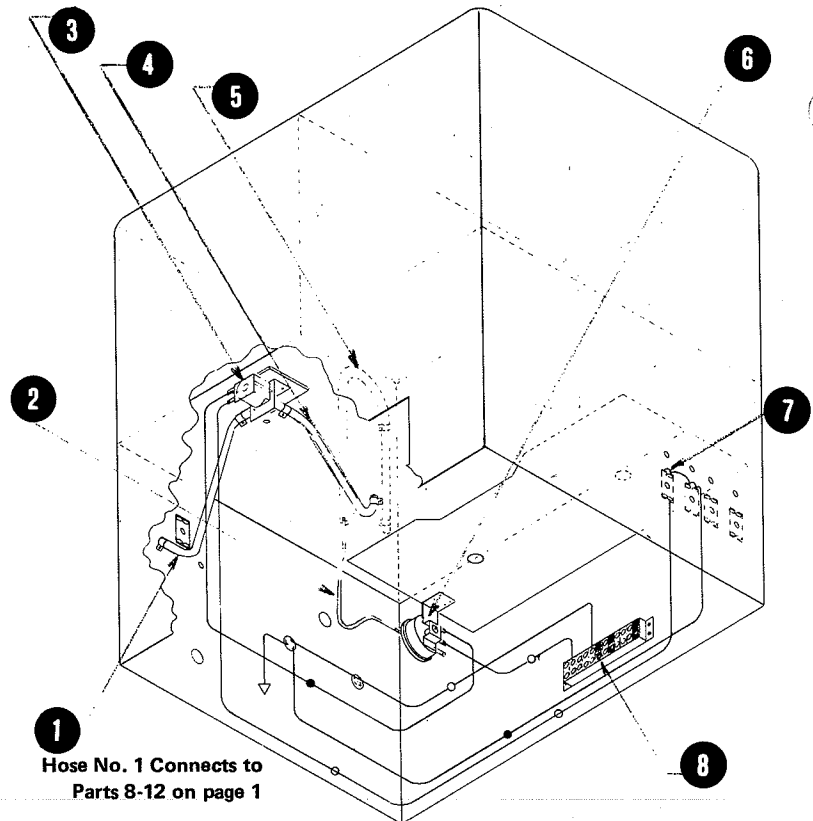
Code	Part No.	Description
1	10520	Vacuum Hose 25' x 2" Complete w/2" cuffs
2	10522	Vacuum Hose 25' x 2"
3	10523	2" Hose Cuff
4	10521	2" x 1-1/2" Hose Cuff
5	10525	Vacuum Hose 50' x 2"
6	10524	Vacuum Hose 50' x 2" Complete (Includes 8 & 9)
7	10318	25' x 1/4" H.P. Solution Hose
		(Includes Swedged on Fittings)
7C	10319	25' x 1/4" H.P. Solution Hose Complete
8	10420	Quick Coupler Plug
9	10315	Quick Coupler
10	10320	50' x 1/4" H.P. Solution Hose Complete with 8 & 9
11	10321	50' x 1/4" H.P. Solution Hose
12	10609	Machine Plug - 20 Amp
13	10601	Wall Plug
14	10604	25' 12 ga. Power Cord
15	10606	25' 12 ga. 20 Amp Power Cord Complete (Primary)
16	10608	25' 14 ga. Power Cord
17	10602	Machine Plug - 15 Amp
18	10601	Wall Plug
19	10607	25' 14 ga. - 15 Amp Power Cord
		Complete (Secondary)

AUTOMATIC FILL SYSTEM

CODE	PART NO.	DESCRIPTION
1	17023	1/2" Hose Between Quick Coupler and Selenoid
2	17024	1/8" Hose Between Bottom of Case and Pressure Switch.
3	17025	Selenoid
4	17026	1/2" Hose Between Selenoid and In Bottom of Clean Water Tank
5	17027	3/8" Air Hose Inside Clean Water Tank
6	17028	Pressure Switch
7	10613	Switch
8	10623	Electrical Block

WIRING:

(a) A black wire runs from the gold screw on the machine receptacle of the secondary power cord to the secondary vacuum switch. (b) A black jumper wire runs between the secondary switch to the automatic fill switch (No. 7). (c) A blue wire runs from the auto fill switch to the bottom side of the selenoid (No. 3). (d) A black wire runs from the top of the selenoid (No. 3). to No. 1 slide on the pressure switch (No. 6). (e) A white wire runs from No. 2 slide on the pressure switch to the electrical block.



The automatic fill system is engineered to obtain maximum results both from working with the Paloma Hot Water Heater and maintaining maximum water temperature in the clean water tank.

It is designed so that a full flow of water runs between the hot water source and the clean water tank. The full flow reduces the temperature loss in the hose plus it is designed to kick the burner on in the Paloma Hot Water Heater, if you have one.

IT WORKS LIKE THIS:

After the water source has been turned on, turn the automatic fill switch on. This provides electrical current to the system.

When the switch is turned on, it opens selenoid No. 3 and allows the water to flow into the clean water tank.

As the tank fills, it pushes air up into the black hose No. 5 inside the clean water tank. As the tank fills air pressure will increase inside hose No. 5 and No. 2 because they are connected. When the water level gets to a certain point, air pressure pushes against a diaphragm in pressure switch No. 6, and the pressure switch electrically shuts off the flow of water by closing selenoid No. 3. As the water is taken out of the clean water tank, the pressure in hoses No. 2 and 5 decreases. The pressure switch again opens and consequently opens the selenoid to start water flowing again into the clean water tank.

*When not using the auto fill system, insure the auto fill switch is turned off.

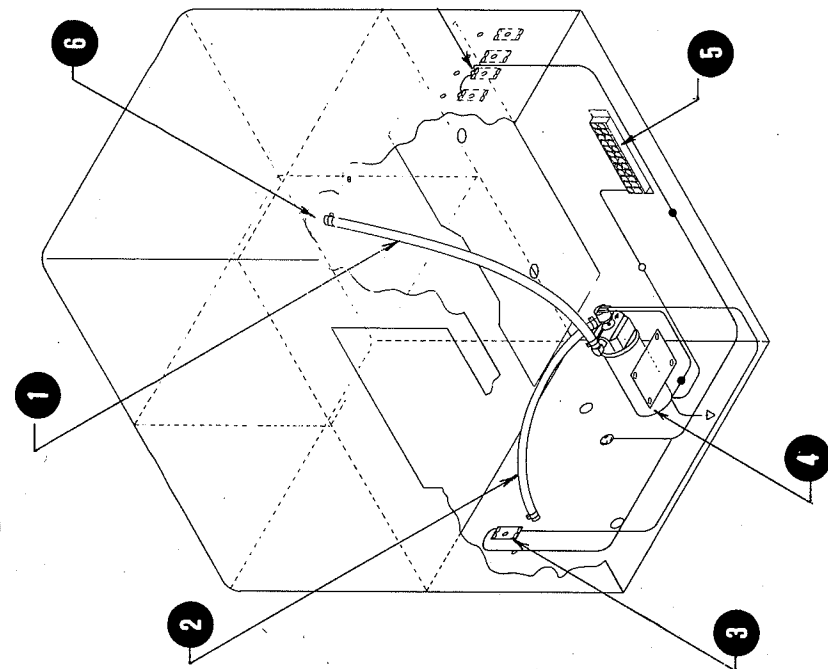
*Never drive down the road with clean water in the tank because that allows water to go into hose No. 5 and settle in hose No. 2 and that creates the problem of not allowing the system to turn on or off.

PROBLEM	CAUSE	SOLUTION
System does not turn on or off	Water in hose No. 2 or in pressure switch.	Remove hose No. 2 and drain the water out. If this does not correct the problem, you might have to remove the pressure switch and drain the water out of it. To check if the pressure switch is working correctly, blow lightly into it and you should hear a click, and when pressure is released it should click again.
	Selenoid is not opening	Replace selenoid.
	Electricity is not getting to system	Check electrical source — wiring — or faulty switch
		The pressure switch can be readjusted by means of the screw on the switch. Contact factory prior to making these adjustments.

TO CHECK THE SYSTEM WITHOUT RUNNING WATER IN IT:

1. Plug the secondary power cord in.
2. Turn on the auto fill switch — If you hear a slight hum by the selenoid, that's good. As you turn the auto fill switch on and off, you should hear the selenoid click.
3. When doing step No. 3, turn off auto fill switch. Take the end of hose No. 5 (the end that is not connected to the bottom of the tank) and blow lightly into the hose, then release the pressure. When blowing and releasing, you should hear a slight click by the pressure switch.

AUTOMATIC DISCHARGE SYSTEM



TROUBLE SHOOTING:

The first place to look if the discharge system is not working properly is the discharge filter No. 45 on page 1. This is located inside the dirty water tank. This filters the dirty water prior to it going into the discharge pump and it must be kept clean.

Second: Check the hoses, blow through them to insure they are clear.

Third: The discharge pump must be defective in some way. See the trouble shooting guide below.

You can get into the discharge pump by leaving the pump on the machine and removing the 4 screws (No. 15). When the pump housing is pulled off, pop out the check valve assembly No. 11, and by clearing out the foreign matter in No. 11 and 13, the problems are solved.

The automatic discharge pump will not pump the recovery tank dry. It will not start pumping until approximately 2" of water is in the tank.

WIRING:

GREEN: Goes to frame for ground.

WHITE: Goes to No. 1 position on wiring block.

BLACK: A wire is spliced into the black wire of the secondary power line and goes to the discharge pump switch.

YELLOW: A yellow wire runs from the discharge pump switch to the pressure switch of the discharge pump.

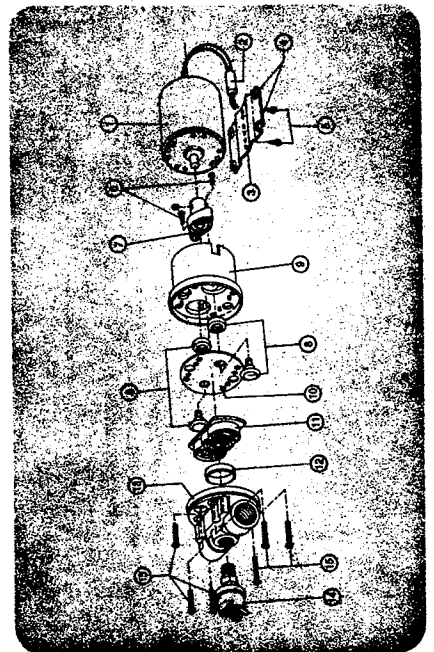
PARTS LIST

KEY	PART NO.	DESCRIPTION	QTY.
1	8100-000	Motor	1
2	9100-001	115 volt	1
3	20039-000	Rectifier assembly	1
4	11028-000	Base Plate	1
5	91003-000	Stromet	Set of 4
6	91003-001	Stromet Screws	Set of 2
7	20033-000	Bearing assembly for 2000-000	1
8	20033-001	Bearing assembly for 2000-001	1
9	20033-003	Bearing assembly for 2000-003	1
10	20041-000	Piston (inner & outer)	Set
11	20016-000	Bearing Cover	1
12	20034-000	Diaphragm	1
13	20034-001	Neoprene (ind'd)	1
14	20028-000	Check Valve assembly	1
15	20028-002	Neoprene (ind'd)	1
16	20028-001	Viton®	1
17	20028-000	Stromet	1
18	20028-002	Neoprene (ind'd)	1
19	20028-001	Viton®	1
20	20017-000	Pump housing	1
21	91001-000	Pressure switch	1
22	92000-102	Screw	Set of 6

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TROUBLE SHOOTING

- Pulsating Flow — Pump Cycling On and Off
- Restricted pump delivery. Check discharge lines, fittings, valves and spray nozzles for clogging or undersizing.
- Failure to Prime — Motor Operates, But No Pump Discharge
- Restricted intake or discharge line. Open all line valves, check for "jammed" check valve poppets and clean clogged lines.
 - Air leak in intake line.
 - Punctured pump diaphragm.
 - Defective pump check valve.
 - Crack in pump housing.
- Motor Fails to Turn On
- Pump or equipment not plugged in electrically. Loose wiring connection.
 - Pressure switch failure.
 - Defective motor or rectifier.
- Pump Fails to Turn Off After Discharge Valves are Closed
- Depletion of available liquid supply.
 - Punctured pump diaphragm.
 - Discharge line leak.
 - Defective pressure switch.
 - Insufficient voltage to pump.
- Low Flow and Pressure
- Air leak at pump intake.
 - Accumulation of debris inside pump and plumbing.
 - Worn pump bearing (excessive noise).
 - Punctured pump diaphragm.
 - Defective rectifier or motor.



AIR TRANSFER CHAMBER

PURPOSE:

The purpose is to provide maximum drying and extraction for different situations.

OPERATION:

The main objective is to obtain dry carpets. On the vast majority of jobs, this is accomplished by running for maximum air flow.

The only time you need maximum suction is when you are cleaning or extracting water 10 feet or more below the level of the machine.

MAXIMUM AIR FLOW:

Black: Open
White: Open
Orange: Closed

MAXIMUM SUCTION:

Black: Closed
White: Closed
Orange: Open

TO OPERATE ONLY PRIMARY VAC:

Black: Closed
White: Open
Orange: Close

PROBLEM SOLVING:

1. If the vacuum shuts off automatically, and does not come back on, push down on the float inside the clean water tank.
2. Always insure that the screen on top of stand pipe No. 48, is always kept clean.

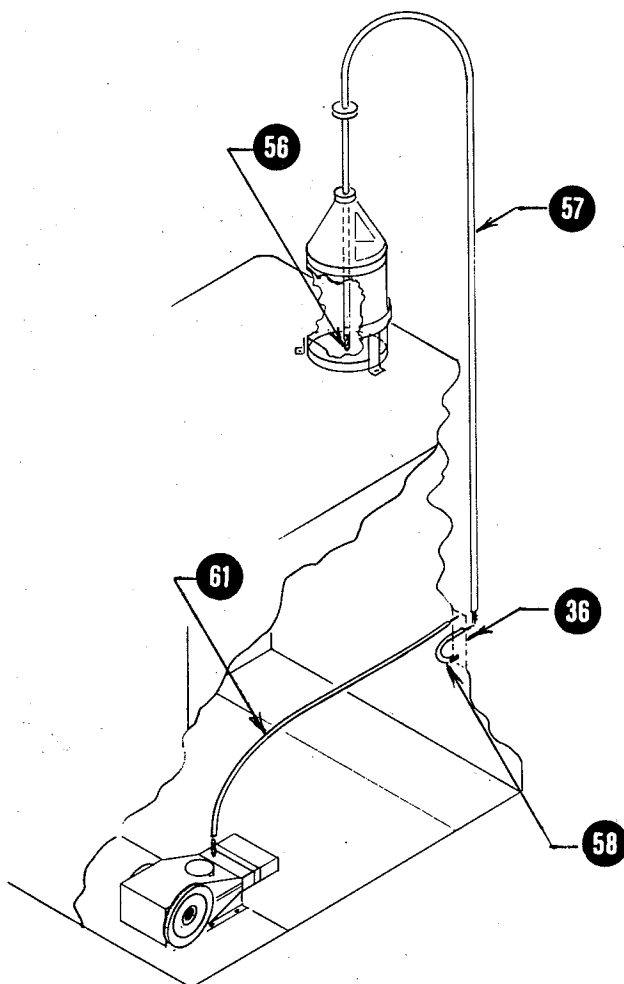
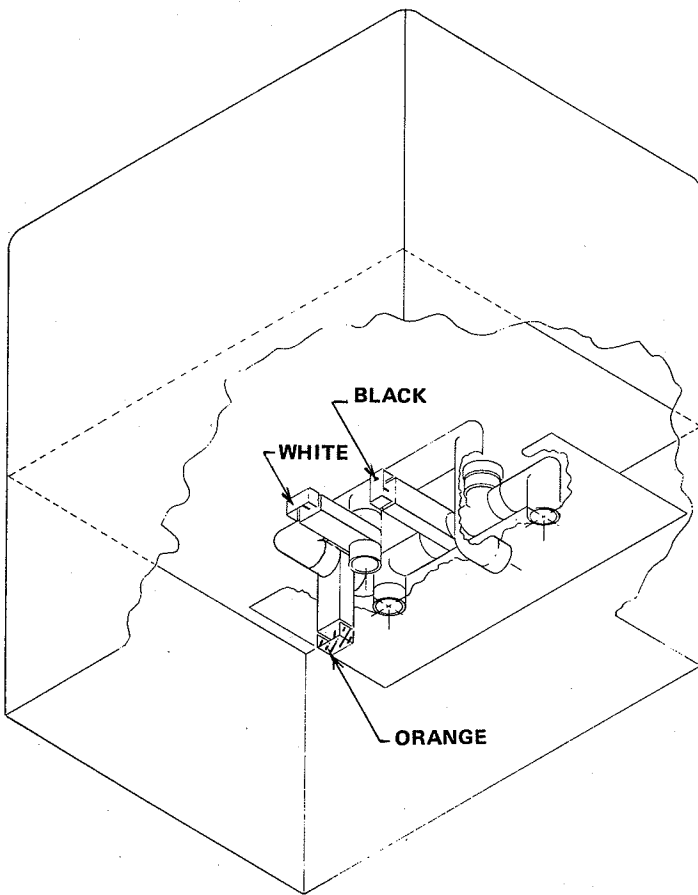
CHEMICAL FEED SYSTEM

CODE	PART NO.	DESCRIPTION
56	17012	1/4" Chem Hose Filter
57	17013	Chem Feed Line
58	17014	Chem Feed Line
61	17015B	Chem Feed Line
36	17009	Chem Flo Meter

If the chemical feed system is not working properly:

1. Check the air getting into the system especially around the flow meter.
2. Check the check valve located on top of the pump (see page 3, part No. 25). Insure the chemical lines are not collapsed.
4. Insure check valve No. 1 on page 3, is not stuck open. If it is, chemical will not be sucked.
5. If you notice water going up into the chemical feed line, (i.e., water backing up, the 1/4" special check valve, part No. 25 on page 3,) is defective.
6. You should run the chemical between 1-1½ on the flow meter.

USE ONLY CASTEX OR CASTEX APPROVED CHEMICALS IN THE MACHINE.



CASTEX ACCESSORIES FOR THE CYCLOMATIC

High Pressure Sprayer
Hose Reel
Heater on Cart
Power Head

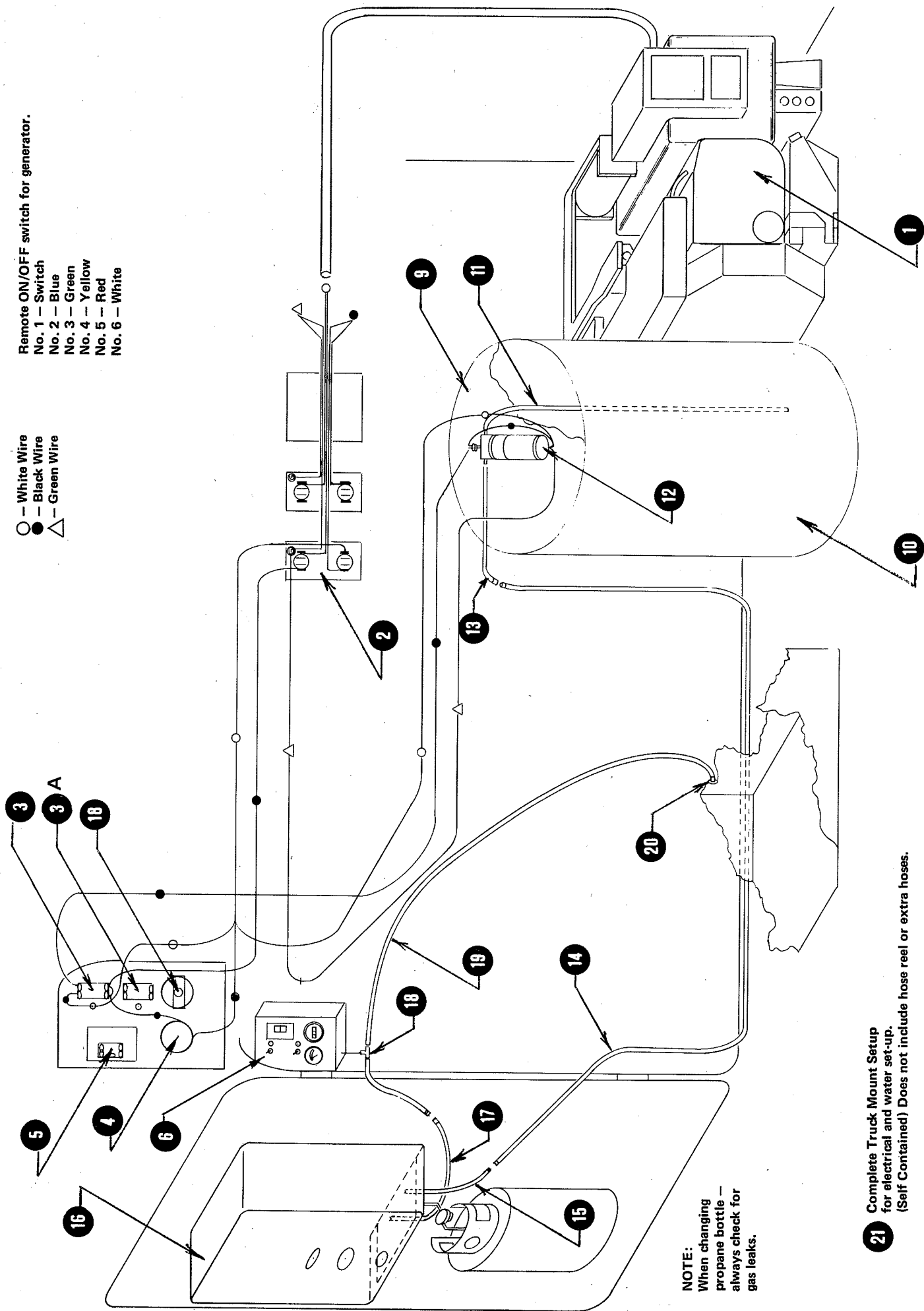
Chrome Wands
Supply Barrel w/pump
Generator
16" Wand

NOTES

Remote ON/OFF switch for generator.

- No. 1 — Switch
- No. 2 — Blue
- No. 3 — Green
- No. 4 — Yellow
- No. 5 — Red
- No. 6 — White

- — White Wire
- — Black Wire
- △ — Green Wire



NOTE:
When changing
propane bottle —
always check for
gas leaks.

21 Complete Truck Mount Setup
for electrical and water set-up.
(Self Contained) Does not include hose reel or extra hoses.

CODE	PART NO.	DESCRIPTION
1	17050	Generator
2	17051	Generator Electrical
		Accessory Kit
3	10613	Switch
3A	10613	Second Switch
4	10617	Hour Meter
5	17053	Generator Remote
		Start Switch
6	17054	Remote Control Panel
7	17055	Aux. 55 gal. Drum
		With Pump
8		
9	17056	Wood Top For Drum
10	17057	Clear 55 gal. Drum
11	17058	Pump Inlet Hose
		3/8" w/filter
12	10202	Water Supply Pump
13	17059	Hose w/quick Coupler
14	17060	Heater Supply Hose
		Between Pump & Heater
15	17061	Heater Inlet
		Flexible Hose
16	17062	Heater
17	17063	Heater Outlet
		Flexible Hose
18	17064	1/2" Tee w/fittings for
		Temperature Gauge
19	17065	3/8" Hose from Heater
		To Auto Fill Inlet
		On Machine
20		Auto Fill Inlet
		On Machine
21	17066	Complete Setup (Includes
		All as Shown in Diagram)
22	17067	Rear Door Brackets
		For Holding Heater

GENERATOR INSTALLATION:

A diagram sheet and all necessary parts are included with generator for installation.

ELECTRICAL:

A 3 strand 10 gauge wire runs from the generator to the plug boxes. This accessory kit is assembled. All that is required, is to hook up the wire into the generator. (See generator booklet for instructions.)

GENERATOR REMOTE:

The remote start switch (5) is all wired up and only has to be plugged into generator.

The top switch controls the water supply pump. All necessary wires are included.

The bottom switch (3A) is an extra switch to be used for lights or whatever. To make that switch hot, splice into the black wire and run it to a bottom screw on the switch. Run another black wire from the top of the switch to the item you want to activate. Run a white wire into the white line and a green into the green.

If you do not use the auxiliary drum, connect your water supply hose to No. 15.

If you want to pre-heat the water in the drum, simply disconnect the hose at No. 20 and put it back into the other opening in the drum.

WATER SYSTEM:

The flow of water in this system starts with No. 10 and goes to No. 20 into the machine.

TEMPERATURE GAUGE:

To connect the gauge, cut hose No. 19 in the correct spot and (turn in the temperature gauge sending wire.) Insert the brass tee with the sending unit inside.

HOSES

No. 11 - 4' Long - Runs into barrel and has a filter on the end.

No. 13 - 8" Long - Quick coupler on one end, other end to pump outlet.

No. 14 - 10' Long - Quick coupler plug on one end - Male garden hose on other.

No. 15 & 17 - Are connected to heater.

No. 18-20 - 13' Long - Female garden hose on one end and quick coupler plug on other. This hose must be cut in the location you desire as it best mounts in your truck.

Auto fill and discharge hoses are included as standard equipment.

DO'S, DON'TS AND MAINTENANCE TIPS

DON'T:

1. Drive down the road with *any* water in the clean water tank. This can cause the auto-fill system to malfunction.
2. Change wands or use different size tips in the wands without consulting the factory.
3. Have the automatic fill switch on when you are not using it.
4. Have the automatic discharge switch on or the discharge ball valve (No. 18 on page 1) open when not using.
5. ALLOW THE MACHINE TO FREEZE. If it does, insure that it is placed in a warm room for 4 hours to allow it to thaw out.
6. USE ELECTRICAL EXTENSION CORDS OF THINNER THAN 10 GAUGE WIRE.

DO:

1. Keep the filter in the dirty water tank clean.
2. Keep the recovery tank clean.
3. Run a "No Brown" solution through the system weekly.
4. Change the oil in the pump every 3 months.
5. Keep the filters and screens in the wand clear.
6. Clean out the recovery tank prior to removing the discharge pump filter located inside.
7. Use 10 gauge wire extension cords.

IF YOU HAVE HARD WATER OR WATER WITH LOTS OF IMPURITIES, DEFINITELY OBTAIN AND USE A WATER SOFTENER.

RECOMMENDED PARTS:

The factory recommends that the following parts and supplies be purchased and maintained by any user. All the parts listed below are Part No. 17070, CycloMatic Owners Parts.

PART NO. DESCRIPTION

10106	Lint Trap Lid "O" Rings (2)
10420	Quick Coupler Plugs (2)
10315	Quick Coupler (2)
30023	CAT Pump Short Cup Kit
30305	Seal Kit For CAT Pump
10613	Switch
17033A	"O" Rings For Pressure Regulator
10413	H.P. Flow Control Valve Repair Kit
17009A	Valve Stem Ass'y For Flo Meter
10107	Lint Trap Lid Outer Ring
10523	2" Hose Cuff
10521	2" x 1-1/2" Hose Cuff
	No. 6 Hose Clamps (2)

PROBLEM SOLVING

To insure proper operation of your CycloMatic, let's start with the power supply.

Because your machine has lots of power, it requires a sufficient amount of electricity.

1. Insure that there is sufficient current in the building in which you are operating.
2. Insure that if you use extension cords, they are at least 10 gauge.
3. If you are working in a building and you continually blow fuses or circuit breakers, or if the motor gets extremely hot, reduce the operating pressure of the solution pump. The lower the operating pressure, the less amperage is required. On some occasions, low voltage can cause these problems.
4. Always insure that your power cords are plugged into 2 different circuits.
5. If you ever replace the solution pump motor, insure that it is wired for 115V, not 230V.

VACUUM SYSTEM

There is very little you have to do to insure the vacuum system is working properly.

PROBLEM	CAUSE	SOLUTION
Loss of Vacuum	Handles on air transfer chamber not in correct position.	Check & Correct
	"O" Ring on Lint Cover Broke	Replace
	Dirt on Stand Pipe Screen	Clean
	Drain Valve Open	Close
	Defective Vacuum Motor	Replace
	Brushes Arcing or Blades Broken	Replace
	Excessive Foam in Recovery Tank or Vacuum Hoses	Use Anti Foam
	Holes in Vacuum Hose	Replace

SOLUTION PUMP SYSTEM

In the solution pump system, a most frequent problem can be air getting into the system. Air and high pressure pumps do not get along well together. Always first refer to Diagnosis and Maintenance in the Operating Instructions of the pump.

PROBLEM	CAUSE	SOLUTION
Loss of Pressure	Worn Inlet Seals	Replace
	Run out of Chemical in Chemical Bottle	Fill bottle and get air out of system
	Using a Chemical That Suds too Much	Flush out and Don't Use Any More.

GETTING THE AIR OUT OF THE SYSTEM:

Put the short piece of hose with the quick coupler plug on the end into the quick coupler of the machine. Put 3 to 5 gallons of water in the machine and turn the solution pump on. Run approximately 2-3 gallons out of the machine, there will not be any indication on the pressure gauge. Then attach the wand and let run for a few minutes with the flow control valve open on the wand.

IMPORTANT

Whenever you rebuild the pump or tear it apart, when you first fire it up, have the short piece of hose, mentioned above, attached. A newly rebuilt pump should not operate against pressure for the first 3 minutes, let the cups and seals seat first.

(1) When inlet seals are worn, air gets into the system. Normally, you can tell if the seals are defective because there is a slight discoloration under the inlet manifold.