



Electronic Service Manuals

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AUTOMATIC BURNISHER

MODEL FURY 21 HSB

INTRODUCTION

OPERATING & MAINTENANCE INSTRUCTIONS

READ THIS BOOK

This operator's book has important information for the use and safe operation of this machine. Read this book carefully before starting the machine. Keep this book and tell all operators to read the book. If you do not follow the instructions, you can cause an injury or damage equipment, furniture or buildings.

For new books write to:

Pacific
2259 S. Sheridan
Muskegon, MI 49442-6252

Carefully inspect all components to ensure that there is no concealed freight damage. If such damage is discovered, file a "CONCEALED DAMAGE REPORT" immediately with the delivering carrier.

The contents of this manual are based on the latest product information available at the time of publication. Pacific Steamex reserves the right to make changes or improvements to its machines without notice.

FOR YOUR CONVENIENCE, RECORD THE FOLLOWING IMPORTANT INFORMATION:

MODEL _____

SERIAL NUMBER _____

PART NUMBER _____

DATE PURCHASED _____

IMPORTANT SAFETY INSTRUCTIONS

READ AND UNDERSTAND ALL INSTRUCTIONS AND WARNINGS BEFORE OPERATING THIS MACHINE!

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

1. You must have training in the operation of the machine before using it. **READ THE INSTRUCTION BOOK.** If you do not understand any instruction, ask your supervisor.
2. Make sure all labels, decals, warnings, cautions and instructions are fastened to the machine.
3. Read the labels carefully on the machine. Do not cover them for any reason and replace them if damaged.
4. Do not operate this machine unless it is completely assembled, inspect the machine carefully before operation.
5. Pay close attention to other people and especially children while operating this machine.
6. Be a careful operator, do not strike shelving or scaffolding, especially where there is a danger of falling objects.
7. Machines can cause an explosion when operated near flammable materials and vapors. Do not use this machine with or near fuels, grain dust, solvents, thinners, or other flammable materials.
8. In case of fire, use a powder extinguisher. Do not use water.
9. Do not use this machine as a means of transport.
10. Do not use acid solutions that could damage the machine.
11. Adjust your speed to the conditions of the floor.
12. Do not turn the machine on a ramp. Do not stop and leave the machine on a ramp or incline.
13. When the machine is parked, move toggle switch to the OFF position.
14. During any maintenance operation disconnect the power supply from the machine.
15. Lead acid batteries generate gases that can cause an explosion. Read the instruction manual supplied with the battery charger. Keep sparks and flames away from batteries.
NO SMOKING. Charge the batteries only in an area with good ventilation.
16. Do not use a charger if the power cord is damaged.
17. Always wear eye protection and protective clothing when working near batteries. Remove all jewelry. Do not put tools or other metal across the battery terminals, or the tops of the batteries.
18. Check the level of the electrolyte every time you charge the batteries. If the level is low, add distilled water only.
19. Maintenance and repairs must be performed by authorized Service Centers only. Make adjustments according to the specifications given in the manual for this machine.
20. Keep the electrical parts of the machine dry. Do not wash the machine with direct water jets or high pressure, nor with corrosive material. For storage, keep the machine in a dry building.
21. 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 where you are working.
22. Do not reach under shrouds with fingers, hands, or toes when machine is running.

OPERATING PROCEDURES

WARNING! For the safe operation of this machine follow the instructions given in this booklet and the training given by your supervisor. Failure to do so can result in personal injury and/or damage to machine and property!

DO NOT OPERATE MACHINE IN AN EXPLOSIVE ENVIRONMENT!

The model shown in this manual is intended for commercial use.

PREPARATION

To prepare the machine for operation, make sure the batteries are charged and the machine is properly assembled. If in doubt, ask your supervisor.

Be prepared by having your floor area cleared and ready for the fast action of a burnisher.

Prepare the floor area by sweeping, dusting or mopping as needed. Check the proper application recommendations and procedures found on the label of your finish container. IF IN DOUBT, CALL YOUR SUPERVISOR .

WARNING! NEVER USE THIS MACHINE WITH FLAMMABLE OR EXPLOSIVE MATERIAL!

BATTERY INSTALLATION

1. Make sure the **Toggle Switch** is in the **OFF** position.
2. Lift and remove the **Upper Hood Cover**.
3. Place the batteries in their compartment and follow the “**Under Hood Electrical Connections**” Drawing on page 5.

BATTERY CHARGING

1. Read and follow the charger instructions.
2. Move the **Toggle Switch** to the **OFF** position.
3. Lift and remove the **Upper Hood Cover**.
4. Connect the charger plug into the mating plug on the machine. It is located on the left side (from the operating position) behind the batteries.

WARNING! NEVER ALLOW THE BATTERIES TO RUN COMPLETELY DOWN, recharge them within a few minutes of the **Battery Condition Meter** reading “**RECHARGE**”.

5. Plug the charger into a grounded 110 volt outlet.

WARNING! NEVER TURN THE MACHINE ON WHILE CHARGING!

6. After charging the batteries, disconnect the charger from the outlet and machine.

PAD INSTALLATION

For Burnishing: Select the correct clean floor pad (your supplier can help you). The lighter color floor pads (buff or white) are normally used for the burnishing procedure.

NEVER OPERATE THE MACHINE WITHOUT THE FLOOR PAD INSTALLED!

It is very important to select clean, dry pads of uniform thickness. Pads with high or low sections, or hard or soft spots are unacceptable. Pads of open weave are recommended; because close weaves tend to load up fast, bog down the machines, cause circuits to overload and generally give poor results.

1. Tilt the machine back toward the handle. The front of the machine should be off the floor about 10-12 inches.
2. Unscrew the blue **Pad Retainer** by turning it counter-clockwise.
3. Install or replace the pad.
4. Center the new pad on the **Pad Driver**.
4. Screw the blue **Pad Retainer** back on by turning it clockwise. Do not over tighten.

OPERATION

1. Make sure the pad is on and attached properly. See “**Pad Installation**”.
2. Reduce the pad pressure by turning the **Caster Knob** clockwise.
3. Move the **Toggle Switch** to the **ON** position, the **Green Indicator Light** will come on.
4. Check the **Battery Condition Meter** before operating. The meter should be in the “**Working Range**”.
5. Adjust the handle to a comfortable operating position by removing the pin on the left side of the handle, then reinsert the pin into the nearest hole.
6. Twist the handgrips forward to operate.
7. Check the **RPM Meter** for **PROPER PAD PRESSURE**:
 - a. With machine turned on and handgrips in the operating position, check **RPM Meter** for pressure:
 1. **White area – pressure is too low.**
 2. **Green area – pressure is good.**
 3. **Red area – pressure is too high.**
 - b. To adjust to desired pressure:
 1. Turn **Caster knob** clockwise to raise pad and decrease pressure.
 2. Turn **Caster knob** counterclockwise to lower pad and increase pressure.
 - c. For the best performance, the **RPM Meter** should be kept in the “**green**” area. A green arrow above the green area indicates the best pressure.

NOTE: Too much pad pressure may trip the fuse. See “Replacing the Fuse” on page 4.

MAINTENANCE

PREVENTIVE MAINTENANCE

WARNING! Always move the Toggle Switch to the OFF position before performing any service, maintenance, pad changing or inspection of the machine.

After Each Use:

1. Empty the paper filter bag if full.
2. Check the paper filter bag for rips or tears.
3. Remove the pad and clean thoroughly.
4. Wipe the entire machine down with a clean cloth.
5. Store the machine inside, in a clean dry area.

Weekly:

1. Check the electrolyte level in the batteries. Add only distilled water if the level is low.
2. Check the battery connections.

Monthly:

1. Check the batteries with a hydrometer.
2. Clean the battery terminals.
3. Check for any loose bolts or screws.

REPLACING THE FUSE

1. Move the **Toggle Switch** to the **OFF** position. The green light should be off.
2. Lift and remove the **Upper Hood Cover**.
3. Disconnect the wires from the **Positive Terminal** of the battery nearest the handle.
4. Remove the **Rear Panel** by unscrewing the ten (10) bolts that connect it to the Handle.
5. **Disconnect the wires** running from the **Handle** to the **Chassis**.
6. Unscrew the **Fuse** located in the lower left hand corner of the opening.
7. Screw a new **Fuse** to the holding blocks.
8. **Reattach the wires** that run from the **Handle** to the **Chassis**.
9. Screw the **Rear Panel** back on.
10. Reconnect the wires to the **Positive Terminal**.
11. Replace the **Upper Hood Cover**.
12. Turn the **Caster Knob** clockwise to raise the pad. Refer to the Operating Instructions on page 3, Item 7 regarding **“PROPER PAD PRESSURE”**.

TROUBLE SHOOTING

Green Light will Not Come On:

1. Check batteries.
2. Check battery connections.
3. Check fuse behind rear panel.
4. Check wire connections to light.
5. Check light.

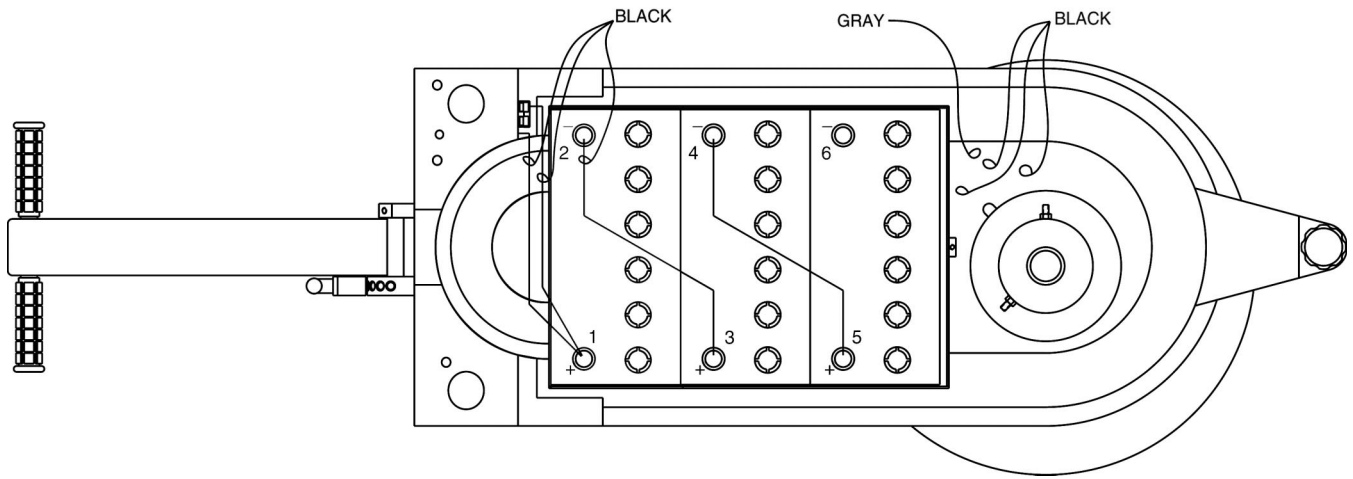
Motor will Not Run:

1. Check batteries.
2. Check battery connections.
3. Check wire connections to switch.
4. Check wire connections to motor.
5. Check motor.
6. Check fuse behind rear panel.

Fuse is blown

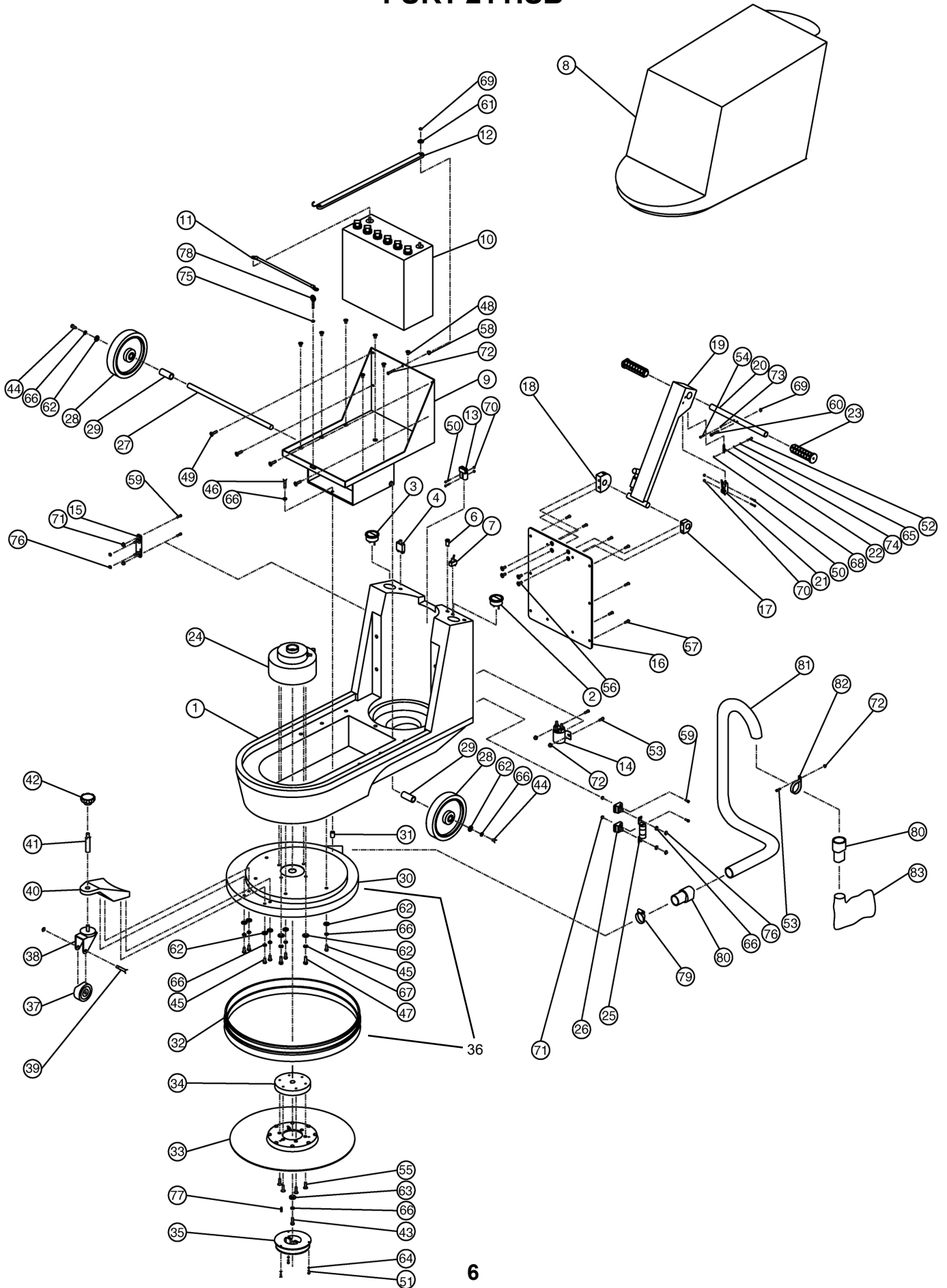
1. Check pad pressure.
2. Check motor.
3. Check wires.

UNDER HOOD ELECTRICAL CONNECTIONS



36 VOLT SYSTEM

FURY 21 HSB



FURY 21 HSB PARTS LIST

Item	Part Number	Description	Qty.
1	864201	Lower Body Housing	1
2	911290	Battery Condition Meter	1
3	911291	RPM Meter	1
4	911292	10A Circuit Breaker	1
6	911293	36VDC Indicator Light- Green	1
7	911294	Toggle Switch	1
8	862302	Upper Hood Cover	1
9	863203	Battery Frame Assembly	1
10	861307	12V Battery	3
11	911295	Battery Cable	2
12	868513	Battery Strap	1
13	911296	Electrical Plug	1
14	911297	DC Contactor	1
15	911298	Shunt	1
16	867011	Rear Panel	1
17	861308	Handle Adjusting Block	1
18	861309	Handle Positioning Block	1
19	863905	Handle Assembly	1
20	869003	Handle Tube	1
21	911299	Snap Switch	1
22	868306	Throttle Spring	1
23	863702	Handle Grip	2
24	865204	2.5 hp. 36VDC 2400 rpm Motor	1
25	911300	Fuse, 120 amp	1
26	911301	Fuse Block	2
27	867704	Axle	1
28	869706	Wheel	2
29	868206	Wheel Spacer	2
30	868515	Pad Skirt	1
31	868207	Pad Skirt Spacer	1
32	868516	Brush Skirt	1
33	865903	21" Pad Driver Assembly	1
34	860202	Pad Driver Adapter	1
35	504470	Pad Retainer	1
36	868517	Skirt & Brush Asm. - Items 30 & 32 riveted together	1
37	869705	Caster Wheel	1
38	869901	Caster Yoke	1
39	860501	Caster Axle & Nut	1
40	860807	Caster Mount Bracket	1
41	860203	Caster Stem Adapter	1
42	865002	Caster Knob	1

Item	Part Number	Description	Qty.
43	962182	5/16-24x 1 HH Bolt	1
44	962129	5/16-18x 5/8 HH Bolt	2
45	W506D	5/16-18x 3/4 HH Bolt	8
46	962049	5/16-18x 1 1/2 HH Bolt	1
47	962022	3/8-16x 1 HH Bolt	4
48	962174	5/16-18x 1/2 FH Screw	7
49	962175	5/16-18x 1 TH Screw	4
50	W323D	#6-32x 1 PH Screw	4
51	W515D	#8-32x 1/2 PH Screw	3
52	962163	#10-32x 1 PH Screw	1
53	W389D	1/4-20x 3/4 PH Screw	3
54	962053	#8-32x 1 RH Screw	1
55	962176	1/4-20x 1 FH SC Screw	6
56	962177	5/16-18x 3/4 FH SC Screw	4
57	962183	Vacuum Cuff	2
58	962184	Vacuum Tubing	1
59	962185	Tubing Clip	1
60	962050	Vacuum Bag	1
61	W104D	1/4 Flat Washer	1
62	W520D	5/16 Flat Washer	10
63	980645	5/16 Special Washer	1
64	980078	#8 Lock Washer	1
65	980022	#10 Lock Washer	3
66	W208D	5/16 Lock Washer	18
67	980009	3/8 Lock Washer	4
68	920013	#10-32 Lock Nut	1
69	920004	1/4-20 Lock Nut	2
70	920637	#6-32 Flanged Nut	4
71	920638	#10-32 Flanged Nut	4
72	920639	1/4-20 Flanged Nut	4
73	920006	#8-32 Nut	1
74	920013	#10-32 Nut	1
75	920004	1/4-20 Nut	3
76	920003	5/16-18 Nut	2
77	915002	3/16x3/16x1 Key	1
78	960039	1/4-20 Eye Bolt	1
79	S611P	Hose Clamp	1
80	600205	Vacuum Cuff	2
81	864103	Vacuum Tubing	1
82	862103	Tubing Clip	1
83	860601	Paper Bag, 3 Pack	1

**WARRANTY POLICY
AUTOMATIC BURNISHER
MODELS FURY 21 HSB**

The **Pacific** Battery Burnisher has been manufactured, tested and inspected in accordance with specific engineering requirements and is **WARRANTED** to be free from defects in workmanship and materials as follows from the date of purchase to the original user.

One (1) Year Parts & Labor – On all components unless excluded below

Part Number	Part Name
911292	Circuit Breaker
911300	Fuse
869706	Wheel
868516	Brush Skirt
869705	Caster
860601	Paper Bag

This warranty extends to the original user/purchaser and only when used, operated and maintained in accordance with **Pacific** Operating and Maintenance instructions.

This warranty does not apply to certain wear parts and accessories of the machine such as pads, fuses, bumpers, vacuum bags, etc., nor does it apply to damage or failure caused by improper use, abuse or neglect. Warranty credit or replacement of return parts including motors, etc., is subject to incoming inspection of those items.

To secure repair under this warranty, the following procedure should be taken:

1. The inoperative machine or warranted parts must be delivered to the authorized dealer with shipping and delivery charges prepaid. If unable to locate the Dealer, you may contact **Pacific** at the address listed herein for the location of the nearest **Pacific** repair center or agent or for other instructions pertaining to your warranty difficulty.
2. Upon compliance with the above warranty procedure, all warranted repairs will be completed at no additional charge or cost to the user.
3. Only **Pacific** or its authorized dealers and agents may make no charge warranty repairs on this product. All others do so at their own risk.

This warranty limits **Pacific** liability to the repair of the product and/or warranted parts replacement and does not include incidental or consequential damages arising from the use of a **Pacific** machine whether defective or not.

BATTERY WARRANTY

In addition to the terms above, any original equipment Pacific Steamex Battery which becomes unserviceable under normal use within a period of ninety (90) days from date of sale to the original user will be repaired or replaced with one of equal specification at our option, F.O.B. any authorized Pacific Steamex Sales or Service Branch, with no charge to user, except transportation costs. After the expiration of the above ninety (90) day period, any battery which fails under normal use will be adjusted to the original user with a new battery of equal specification on a twelve (12) month pro rata basis from the date of purchase. Adjustment will be determined using the then current list price, plus transportation costs. Warranty is rendered null and void if battery is not kept filled to the proper level with DISTILLED WATER.

This warranty is in lieu of all other expressed or implied warranties and is extended to the original purchaser/user.

PACIFIC

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