

# OPERATOR M A N U A L

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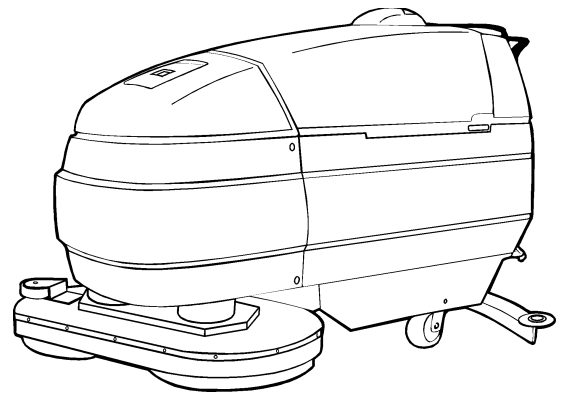
**Kent**

**SelectScrub™**

**KA-27, KA-33, KA-39**

Models 56636998, 56637002, 56637005

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# MACHINE SPECIFICATIONS

## SELECTSCRUB KA-27SS

## SELECTSCRUB KA-33SS

## SELECTSCRUB KA-39SS

Noise Level:	73dB @ 10'	73dB @ 10'	73dB @ 10'
Controls:	Light effort, PUSH/PULL dead man lever for forward or reverse operation. Instrument panel with rocker switches and variable speed control knob. Easy access squeegee lift lever with automatic vacuum control.	Light effort, PUSH/PULL dead man lever for forward or reverse operation. Instrument panel with rocker switches and variable speed control knob. Easy access squeegee lift lever with automatic vacuum control.	Light effort, PUSH/PULL dead man lever for forward or reverse operation. Instrument panel with rocker switches and variable speed control knob. Easy access squeegee lift lever with automatic vacuum control.
Traction Motor:	24V, 3/4HP, 195 rpm, permanent magnet gear motor.	36V, 3/4HP, 195 rpm, permanent magnet gear motor.	36V, 3/4HP, 195 rpm, permanent magnet gear motor.
Vacuum Motor:	24V, 3-stage, by-pass type, tangential discharge. Develops 67"H <sub>2</sub> O sealed lift, and 67 CFM through a 1-1/2" orifice.	36V, 3-stage, by-pass type, tangential discharge. Develops 74"H <sub>2</sub> O sealed lift, and 72 CFM through a 1-1/2" orifice.	36V, 3-stage, by-pass type, tangential discharge. Develops 74"H <sub>2</sub> O sealed lift, and 72 CFM through a 1-1/2" orifice.
Brush Motors:	Two 24V, 3/4HP, 195 rpm, permanent magnet gear motor. Direct drive to self-leveling brushes.	Two 36V, 3/4HP, 195 rpm, permanent magnet gear motor. Direct drive to self-leveling brushes.	Two 36V, 1 HP, 195 rpm, permanent magnet gear motor. Direct drive to self-leveling brushes.
Traction Drive:	All electronic control variable speed drive. Featuring dynamic braking for easy control up and down ramps.	All electronic control variable speed drive. Featuring dynamic braking for easy control up and down ramps.	All electronic control variable speed drive. Featuring dynamic braking for easy control up and down ramps.
Brushes:	Dual 14" (35.6cm) dia., self-leveling, counter-rotating, 195 rpm.	Dual 17" (43.2cm) dia., self-leveling, counter-rotating, 195 rpm.	Dual 20" (50.8 cm) dia., self-leveling, counter-rotating, 195 rpm.
Scrubbing Width:	27" (68.6cm).	33" (83.8cm).	39" (99.1 cm).
Brush Pressure			
Floating:	115 lbs. (52.2Kg)	125 lbs. (56.7Kg)	135 lbs. (61.2 Kg)
Strip:	180 lbs. (81.7Kg)	200 lbs. (90.7Kg)	200 lbs. (90.7Kg)
	Maximum will vary depending upon floor surface and pad or brush used. Current limit of brush drive motor must not be exceeded.	Maximum will vary depending upon floor surface and pad or brush used. Current limit of brush drive motor must not be exceeded.	Maximum will vary depending upon floor surface and pad or brush used. Current limit of brush drive motor must not be exceeded.
Tanks			
Solution:	22 gallon (83.3L)	30 gallon (113.6L)	30 gallon (113.6L)
Recovery:	22 gallon (83.3L)	30 gallon (113.6L)	30 gallon (113.6L)
Material:	High-density, molded seamless linear polyethylene.	High-density, molded seamless linear polyethylene.	High-density, molded seamless linear polyethylene.
Batteries:	Four (4) heavy-duty deep cycle type, 6V, 250 AH, series connected.	Six (6) heavy-duty deep cycle type, 6V, 200 AH, series connected.	Six (6) heavy-duty deep cycle type, 6V, 250 AH, series connected.
Squeegee:	35.8" (90.9cm) wide swinger type with welded-in vacuum tube, easily replaceable gum rubber blades (reversible for extended wear), accurate, pressure and tilt adjustments. Pivot makes squeegee self-leveling on turns.	41.5" (105.4cm) wide swinger type with welded-in vacuum tube, easily replaceable gum rubber blades (reversible for extended wear), accurate, pressure and tilt adjustments. Pivot makes squeegee self-leveling on turns.	47.5" (120.7cm) wide swinger type with welded-in vacuum tube, easily replaceable gum rubber blades (reversible for extended wear), accurate, pressure and tilt adjustments. Pivot makes squeegee self-leveling on turns.
Wheels			
Traction Wheel:	One (1) 10" (25.4cm) dia. molded.	One (1) 10" (25.4cm) dia. molded.	One (1) 10" (25.4cm) dia. molded.
Caster Wheels:	Two (2) 5" (12.7cm) polyurethane swivels with 750 lbs. capacity.	Two (2) 5" (12.7cm) polyurethane swivels with 750 lbs. capacity.	Two (2) 5" (12.7cm) polyurethane swivels with 750 lbs. capacity.
Solution Feed:	Two-speed solution pump and solenoid valve controls the flow rate to center of each brush.	Two-speed solution pump and solenoid valve controls the flow rate to center of each brush.	Two-speed solution pump and solenoid valve controls the flow rate to center of each brush.
Vacuum Shut off Switch:	Float Switch	Float Switch	Float Switch
Frame:	All welded steel 7 Ga. and 11 Ga. with epoxy powder coating.	All welded steel 7 Ga. and 11 Ga. with epoxy powder coating.	All welded steel 7 Ga. and 11 Ga. with epoxy powder coating.
Outer Shell:	High-density molded polyethylene tanks and covers.	High-density molded polyethylene tanks and covers.	High-density molded polyethylene tanks and covers.

# MACHINE SPECIFICATIONS (CONTINUED)

Brush Cover:	All welded 11 Ga. steel with epoxy powder coating.	All welded 11 Ga. steel with epoxy powder coating.	All welded 11 Ga. steel with epoxy powder coating.
Battery Charger:	External, electronic, 20 amp, 24V.	External, electronic, 20 amp, 36V.	External, electronic, 20 amp, 36V.
Dimensions			
Length (overall):	63" (160.0cm)	65.5" (166.4cm)	68.5" (174.0cm)
Height (overall):	41.5" (105.4cm)	41.5" (105.4cm)	41.5" (105.4cm)
Width (body):	24" (61.0cm)	28.5" (72.4cm)	28.5" (72.4cm)
Width (brush head):	29" (73.7cm)	35" (88.9cm)	41" (104.1cm)
Weight			
Machine & Batteries:	950 lbs. (430.9 Kg)	1,030 lbs. (467.2 Kg)	1,190 lbs. (539.8 Kg)
Shipping Weight			
Machine:	618 lbs. (280.3 Kg)	665 lbs. (301.6 Kg)	734 lbs. (332.9 Kg)
Battery Pack:	350 lbs. (158.8 Kg)	384 lbs. (174.2 Kg)	500 lbs. (226.8 Kg)
Charger:	25 lbs. (11.3 Kg)	25 lbs. (11.3 Kg)	25 lbs. (11.3 Kg)

## ACCESSORIES

Off-Isle Wand	039584	039584	039584
Pad Holders			
Pad Holder (Lh Thread):	020385	020382	020383
Pad Holder (Rh Thread):	020384	027132	027133
Pad Holder Parts			
Center Plate (Attached)	039576 (right hand thread)	039576 (right hand thread)	039576 (right hand thread)
	039578 (left hand thread)	039578 (left hand thread)	039578 (left hand thread)
Pad Clamp (Loose)	039577 (right hand thread)	039577 (right hand thread)	039577 (right hand thread)
	039579 (left hand thread)	039579 (left hand thread)	039579 (left hand thread)
Pads			
Strip Pad	015703	015700	015697
Scrub Pad	015704	015701	015698
Polish Pad	015705	015702	015699
Brushes			
Bassine Scrub	020387	020391	020395
Polish	020388	020392	020396
Polypropylene	020386 (Std)	027134 (Std)	027135 (Std)
Steel Wire	020389	020393	020397
Grit	020390	020394	020398
MICROSTAT™ Filter Kit	038303	038303	038303
Batteries			
With Acid (Wet):			
200 Amp-Hr (Set)	026956 (4-Pack)	026951 (6-Pack, Std)	026951 (6-Pack)
200 Amp-Hr (Single)	026408	026408 (Std)	026408
250 Amp-Hr (Set)	026106-1 (4-Pack,Std)	026950-1 (6-Pack)	026950-1 (6-Pack,Std)
250 Amp Hr (Single)	026200 (Std)	026200	026200 (Std)
330 Amp Hr (Set)	027168 (4-Pack)	027047 (6-Pack)	027047 (6-Pack)
330 Amp-Hr (Single)	027048	027048	027048
Without Acid (Dry):			
200 Amp-Hr (Set)	026565 (4-Pack)	026568 (6-Pack)	026568 (6-Pack)
200 Amp-Hr(Single)	026441	026441	026441
250 Amp-Hr (Set)	026107-1 (4-Pack)	026570-1 (6-Pack)	026570-1 (6-Pack)
250 Amp Hr (Single)	026200-1	026200-1	026200-1
330 Amp Hr (Set)	026108 (4-Pack)	027111 (6-Pack)	027111 (6-Pack)
330 Amp-Hr (Single)	027100	027100	027100
Battery Chargers:			
120 Volt - 60 Hertz	031400	031403	031403
100 Volt - 50 Hertz	031402	031405	031405
230 Volt - 50 Hertz	031401	031404	031404
230 Volt - 60 Hertz	031402	031405	031405
Squeegee Blades:			
Std. Blade Set (3 Pcs)	039590	039566	039567
Front Blade	056425	056428	056632
Std. Rear Blade	056427	056429	056633
Backup Blade	056426	056430	056634
Neoprene Rear Blade	039589	039568	039569

For a complete list of accessories and to order, contact your local Kent equipment dealer or the dealer from which the machine was purchased.

This manual will help you get the most from your **Kent Automatic Scrubber**. Read it thoroughly before operating the machine.

This product is intended for commercial use only.

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## PARTS AND SERVICE

Repairs, when required, should be performed by your Authorized Kent Service Center, who employs factory trained service personnel, and maintains an inventory of Kent original replacement parts and accessories.

Call the KENT DEALER named below for repair parts or service. Please specify the Model and Serial Number when discussing your machine.

(Dealer, affix service sticker here.)

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## NAME PLATE

The Model Number and Serial Number of your machine are shown on the Nameplate on the bottom of the machine. This information is needed when ordering repair parts for the machine. Use the space below to note the Model Number and Serial Number of your machine for future reference.

MODEL NUMBER \_\_\_\_\_

SERIAL NUMBER \_\_\_\_\_

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## UNCRATE THE MACHINE

When the machine is delivered, carefully inspect the shipping carton and the machine for damage. If damage is evident, save the shipping carton so that it can be inspected. Contact the Kent Customer Service Department immediately to file a freight damage claim.

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# IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic precautions should always be followed, including the following:

**READ ALL INSTRUCTIONS BEFORE USING THE MACHINE!**

## **WARNING!**

Failure to follow these safety instructions could result in damage to the machine, damage to property, bodily injury, or death.

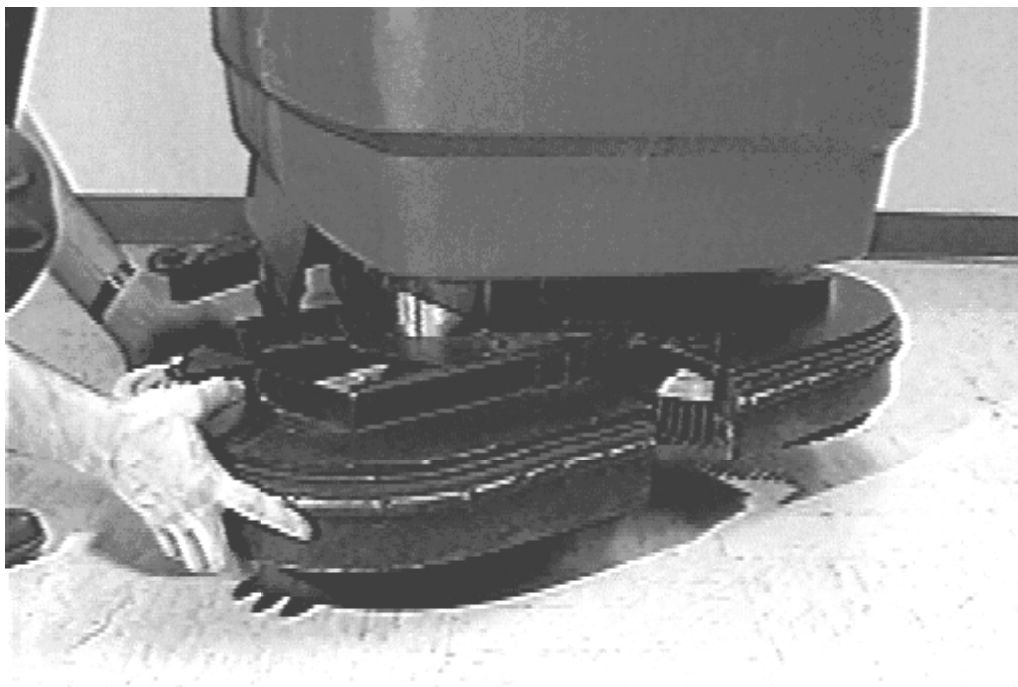
- \* Do not leave the machine when powered on. Remove the key from the keylock when not in use and before servicing.
- \* When not in use, move the machine to a level surface.
- \* Do not allow the machine to be used as a toy. Close attention is necessary when near children.
- \* Do not sit on this machine while it is stationary or in motion.
- \* Use only as described in this manual. Use only manufacturer's recommended attachments.
- \* If the machine is not working as it should, because it has been dropped or damaged, return it to a service center before using.
- \* Do not use this machine without the brush covers installed! Damage may result if the brushes or pad holders are allowed to hit other objects.
- \* This machine creates suction and contains revolving brushes. Keep hair, loose clothing, fingers, and all other parts of the body away from openings and moving parts.
- \* Do not pick up anything that is burning or smoking, such as cigarettes, matches, or hot ashes.
- \* Always follow the detergent manufacturer's safety precautions when adding cleaning solution to the machine.
- \* Do not use to pick up flammable or combustible liquids such as gasoline, or use in areas where they may be present.
- \* Do not use in areas where flammable and or explosive vapor or dust is present to avoid the possibility of fire or explosion. Some cleaning fluids can produce such vapors.
- \* Wet floor surfaces can be dangerously slippery. Always place "Caution Wet Floor" signs in the area that you are cleaning.
- \* When working with or near batteries, always wear eye protection and protective clothing, and remove all jewelry to prevent accidental electrical sparks and/or shock.
- \* Do not place tools or other metal objects on or near the tops of the batteries to prevent accidental arcing between the battery terminals.
- \* Explosive hydrogen gas is formed during battery charging. Avoid charging the batteries around any open flame or anything which could produce an electrical spark. Always charge the batteries in a well ventilated area. Do not disconnect the battery charger from the machine while charging. Disconnecting the charger plug, while charging, may produce an electrical spark. Always keep the battery compartment open while charging.
- \* Do not use a charger that has a damaged power cord. Serious or fatal injury could occur due to a damaged power cord.
- \* Operate the machine only from the rear of the machine. Operating it from any other position may result in injury or damage.
- \* Do not attempt to transport the machine without assistance. Use two or more people to help guide the machine while on a ramp or incline. Move cautiously and slowly. Do not turn the machine on a ramp. Do not stop and leave the machine on the ramp or incline. Failure to follow these instructions, while transporting the machine, may result in serious bodily injury and or damage to the machine or other property.
- \* Do not attempt to transport the machine without tying it down to the bed of the vehicle with straps. Tie the machine by placing the straps through the strap slots which are located on the machine frame just above the rear casters. For more information on how to find the strap slots, refer to the "FEATURES", "TRANSPORTING" section of this manual.
- \* Store your machine indoors in a cool, dry area. Do not expose the machine to temperatures in excess of 120°F or lower than 35°F for extended periods of time. Freezing solution can result in damage to the pump, solution plumbing, and tanks.
- \* Keep your work area well lighted.

## **SAVE THESE INSTRUCTIONS**

Once the machine is completely unpacked, install the batteries and battery terminals as illustrated on the “BATTERY WIRING DIAGRAM” located inside the machine just above the battery box.

Next, install the brush covers. Be sure to install the brush covers so that the latch is in the front of the machine (Figure 1).

**FIGURE 1**



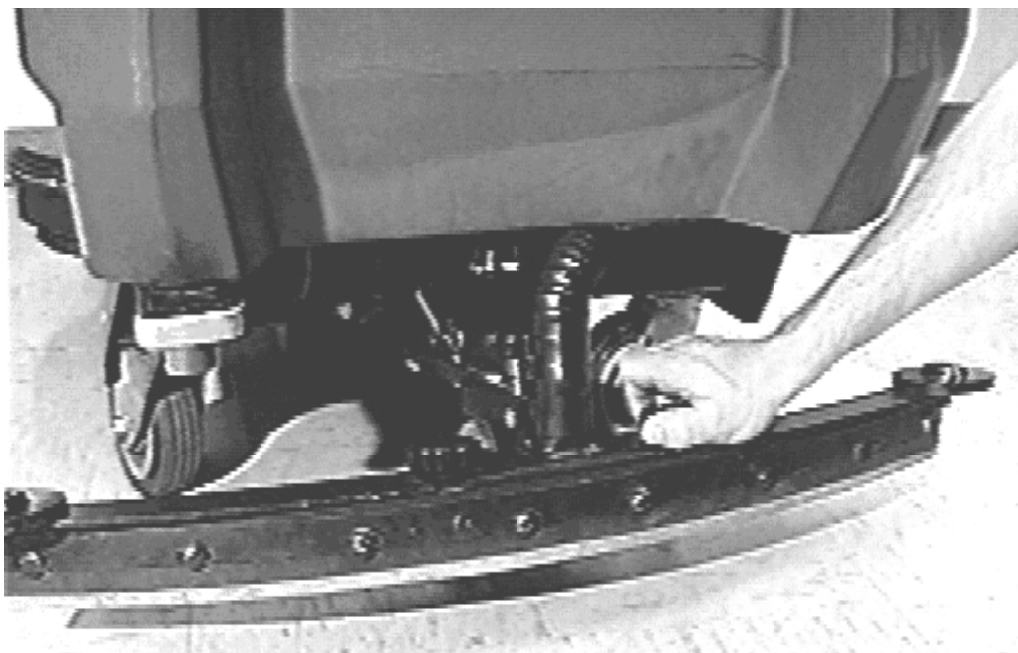
**⚠ WARNING!**

DO NOT USE THIS MACHINE WITHOUT THE BRUSH COVERS INSTALLED! DAMAGE MAY RESULT IF THE BRUSHES OR PAD HOLDERS ARE ALLOWED TO HIT OTHER OBJECTS.

Next, attach the squeegee to the squeegee bar using the two knobs supplied with the squeegee (Figure 2). The squeegee has been factory adjusted, so it does not need initial adjusting.

The machine is now ready for the brushes to be installed and prepared for scrubbing.

**FIGURE 2**



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# OPERATION

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## CONTROLS

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### KEYLOCK SWITCH

The keylock switch is the master power switch. To switch the machine on, insert and turn the key clockwise.

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### BATTERY CONDITION INDICATOR

The Battery Condition Indicator displays the voltage level available from the batteries. When fully charged, the needle should be at the top of the green or in the yellow zone. As the voltage level decreases during use, the needle will move toward the red zone.

When the machine's voltage nears the "E", the batteries should be recharged. Recharging will ensure long life of the batteries. Completely discharging the batteries, long after the machine indicates the need for charging, will eventually reduce the life of the batteries.

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### DRIVE SPEED CONTROL KNOB

The variable Speed Control Knob can be used to adjust the machine speed anywhere from 0 to 225 feet per minute. The label around the Speed Control Knob has the numbers 1 to 10 around the knob for your convenience in setting the same desirable speed every time you use your machine.

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### CONTROL DRIVE BAR

Once the key is inserted into the keylock and turned to the POWER position, the machine is ready to drive in both forward and reverse by squeezing or pulling the Control Drive Bar.

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### DYNAMIC BRAKING

Dynamic Braking, built into the speed control, helps to maintain a nearly constant speed while traveling up or down a ramp or incline by keeping the drive speed at a nearly constant rate.

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### BRUSH INSTALL SWITCH

The brush Install switch is used to switch the brush motors to a slow speed during brush or padholder installation. At all other times, the Install switch must be snapped to the "SCRUB MODE" position. To install:

- 1 The keylock switch must be turned on, and the Install switch must be snapped to the "INSTALL" position.
- 2 Press and hold the "+" side of the Brush Up/Down switch until the brush head weight is fully resting on the floor. Inadequate pressure may result in the brushes not locking on properly.
- 3 Snap the Install switch up to the "SCRUB MODE" position.

**Note:** If the brushes wobble badly while turning, check to see if the brush lugs are engaged properly. If the brush lugs are not all properly engaged, remove the brushes using the Remove switch as described below and repeat the installation steps above.

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### BRUSH REMOVE SWITCH

The brush Remove switch is used to automatically remove the brushes or padholders from the machine. To remove:

- 1 With the keylock switch turned on, press the Remove switch down to the "REMOVE" position and release. The brushes will drop to the floor.
- 2 Snap the Remove switch up to the "SCRUB MODE" position. If the Remove switch is not returned to the "SCRUB MODE" position, the brushes will fall off each time the brushes are raised during operation.

**Note:** If the brush lugs were not locked in properly during the installation process, the lugs can jam making automatic removal impossible. In these cases the brushes may need to be removed manually by suddenly twisting the front of the brushes in toward the center of the machine.

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### BRUSH UP/DOWN SWITCH

Pressing the "+" side lowers the brushes, pressing the "-" side raises the brushes. As the brushes are lowered to the floor the brush motors automatically start turning, when raised they turn off automatically.

The brush pressure on the floor can be adjusted by pressing the "+" or "-" side of switch. Monitor brush pressure by using the brush pressure indicator, readings will vary with different floor conditions.

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## BRUSH PRESSURE INDICATOR

The brush pressure indicator needle reflects the amount of load on the brush drive motors. The green zone indicates a safe operating range for extended scrubbing. The yellow zone indicates high current still within safe range for heavy stripping or scrubbing. The red zone indicates excessive current. Operating with excessive current may cause the brush drive circuit breakers to trip, and shorten the life of the brush drive motors.

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## VACUUM/SQUEEGEE LEVER

The handle on the right side at the rear of the machine is used to raise and lower the squeegee, there are three available settings. To change settings, push the lever to the right, move up or down then pull the lever to the left to lock into desired setting. Raising the lever to the top position drops the squeegee to the floor and provides pressure to improve pickup performance. Pushing the lever down to the bottom setting lifts the squeegee and turns the vacuum motor off. The middle position lifts the squeegee slightly and allows the vacuum motor to continue running. This position is used when backing up during scrubbing, or when the machine is used with the hose and wand accessory for cleaning remote areas.

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## RECOVERY TANK FLOAT SWITCH

When water is detected at the full level, the vacuum motor will automatically turn off until the recovery tank is emptied.

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## SOLUTION FLOW SWITCH

The Solution Flow switch is used to control the flow of solution to the floor. To start, set the switch to the desired "HI" or "LO" flow setting. To stop, snap the switch to the center, "OFF" position.

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## CIRCUIT BREAKERS

The circuit breakers, located on the back side of the machine provide protection against amperage overload on all of the machine's motors. If a circuit breaker trips, the button will pop out. To reset the breaker, wait a moment and press the button back in. If any of the circuit breakers trip repeatedly, have the machine examined by the dealer from which the machine was purchased or an authorized service station.

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## SOLUTION

### ADDING SOLUTION

To add solution, first, remove the front tank's lid and pour in the cleaning chemical using the correct dilution ratio. Next, fill the tank to approximately 2 inches from the bottom of the tank opening. Water temperature must not exceed 130°F.

**NOTE: USE NON-FOAMING CHEMICALS ONLY.**

### SOLUTION FILTER

This filter is located at the bottom of the tank through the opening in the front lid. This filter does not require regular cleaning; however, if something should fall into the tank, the filter should be inspected and possibly cleaned.

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# OPERATION

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## EMPTYING AND RINSING THE RECOVERY TANK

To empty the recovery tank, simply remove the end of the drain hose from the hose cup at the rear of the machine (Figure 3). Place the end of the hose in a suitable waste water drain, and pull the recovery tank's drain valve (Figure 4). After each use, the recovery tank should be rinsed and left with the lid off, to minimize residue buildup and odor.

**FIGURE 3**



**FIGURE 4**



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## RINSING THE RECOVERY TANK WITH SOLUTION

To rinse the recovery tank with the solution tank's solution, unplug the vacuum hose from the squeegee and plug it into the solution tank's drain valve (Figure 5). Next, open the solution tank's lid, then open the solution tank's drain valve. Lower the squeegee to switch the vacuum motor on. This will rinse the recovery tank with the solution from the solution tank. Now, you are ready to drain the recovery tank using the procedures above in "EMPTYING AND RINSING THE RECOVERY TANK".

**FIGURE 5**



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## EMPTYING AND RINSING THE SOLUTION TANK

The solution in the solution tank can be either drained or used to rinse the recovery tank. To drain, simply open the solution tank drain valve. Be sure to drain the solution into a suitable waste water drain. Once the solution tank is empty, it should be rinsed and left to ventilate, with the lid off, to minimize residue buildup and odor. To rinse the recovery tank with the solution, refer to the previous section

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## “RINSING THE RECOVERY TANK WITH SOLUTION”.

A small amount of solution will remain in the tank in an area that feeds the solution pump. To remove the remaining solution, after draining the tank with its drain valve, switch the solution flow on. The solution pump will pump out the remaining solution in approximately 3 minutes.

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## SCRUBBING PROCEDURES

Before scrubbing, be sure to sweep the floor for debris. If the floor is scattered with debris, the squeegee will leave streaks and possibly cause the vacuum hose to clog, reducing the performance of the machine.

For effective long scrubbing use, begin with fully charged batteries. Next, add the correct ratio amount of the cleaning chemical to the solution tank. Now, fill the tank with water, agitating it if possible, to 2 inches below the bottom of the lid and install the brushes. For more information on installing the brushes, see “BRUSH INSTALL SWITCH” in the “OPERATION: CONTROLS” section of this manual. Be sure to replace the brush covers if they have been removed.

**WARNING: DO NOT USE THIS MACHINE WITHOUT THE BRUSH COVERS INSTALLED! DAMAGE MAY RESULT IF THE BRUSHES OR PAD HOLDERS ARE ALLOWED TO HIT OTHER OBJECTS.**

The machine is now ready for scrubbing. Insert the key into the keylock and turn it to the POWER position. Adjust the DRIVE SPEED CONTROL knob, flip the solution flow switch to the desired rate, lower brushes and squeegee to the floor and push the DRIVE CONTROL BAR forward to begin scrubbing. You may need to adjust the FLOW CONTROL or BRUSH PRESSURE settings according to the condition of the floor.

While scrubbing, slightly overlap the scrubbing passes and reduce speed when cornering to ensure complete solution pickup. For the best possible control of the machine, grip the DRIVE CONTROL BAR with both hands, adjusting the DRIVE SPEED CONTROL knob with your index finger.

Once the RECOVERY TANK float switch turns off the vacuum motor, empty the recovery tank, fill the solution tank again, and continue scrubbing. When completed with scrubbing, empty and rinse both tanks and wipe the exterior of the machine with a clean cloth preparing it for its next scrubbing duty.

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## CLEAN UP AND STORAGE

When finished scrubbing for the day, be sure to empty and rinse the tanks and clean the lint screen located on the vacuum tube, directly under the recovery tank lid.

Do not expose the machine to temperatures in excess of 120°F or lower than 35°F for extended periods of time either in storage or in transporting. Freezing solution can result in damage to the pump, solution plumbing, and tanks.

# MAINTENANCE

Please read and follow the "MAINTENANCE SCHEDULE" located under the recovery tank.

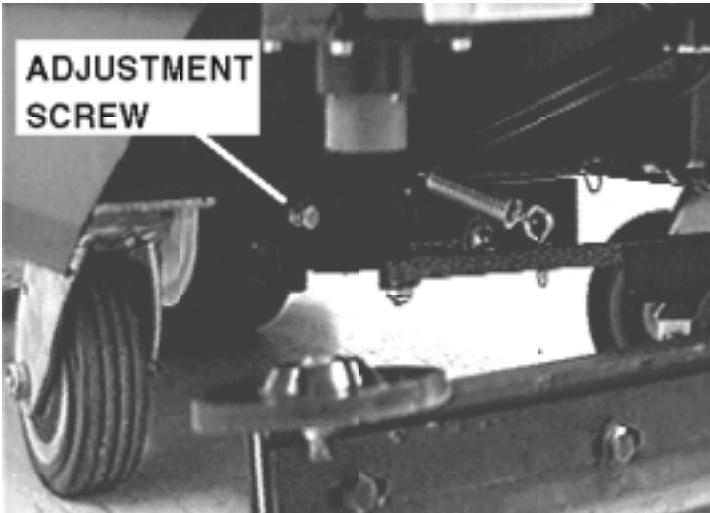
At the end of the day's operation, the machine should be completely cleaned and prepared for the next shift's operations. Careful maintenance will insure effective performance throughout a long period of service.

## DRIVE MOTOR CHAIN ADJUSTMENT

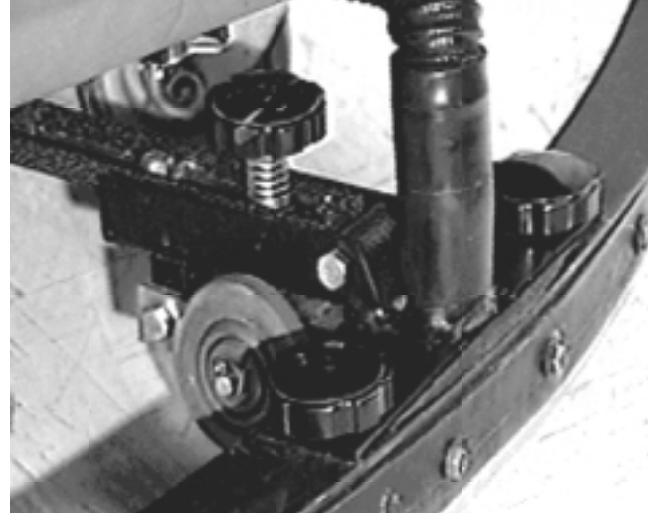
To adjust the tension of the chain, first loosen the adjustment screw's jam nut (Figure 6). Next, turn the adjustment screw clockwise to tighten the chain and counterclockwise to loosen. A properly adjusted chain should have a 1/2 inch of slack. When the chain is properly adjusted, retighten the jam nut.

**NOTE:** Excessive chain tension may cause damage to the bearings, sprockets, or chain.

**FIGURE 6**



**FIGURE 7**



## SQUEEGEE TILT ADJUSTMENT

The squeegee on this machine pivots freely, allowing the pressure on each end of the squeegee to keep it level with the floor at all times. The front to rear tilt adjustment is correct if, as the machine is moved forward, there is an equal amount of squeegee flare at the ends of the squeegee rubber compared to the center.

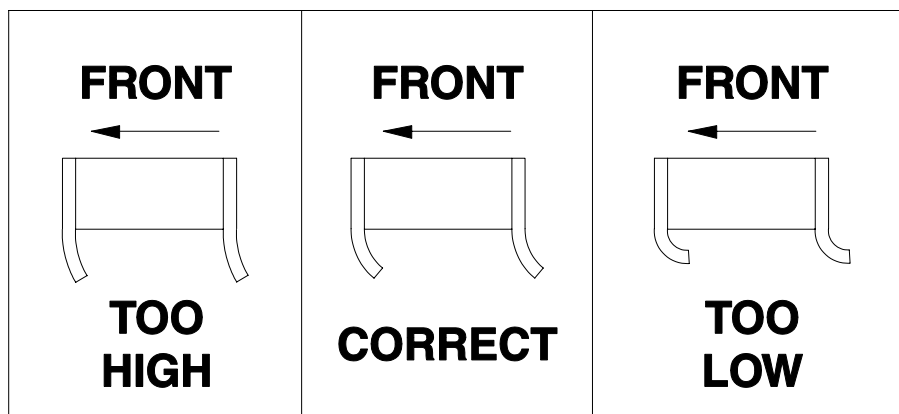
To adjust the tilt of the squeegee, turn the tilt adjustment screw which can be found on the squeegee bar just in front of the squeegee height adjustment knob (Figure 7). Turn the screw clockwise to tilt the ends of the squeegee upward and counterclockwise to turn the ends downward.

## SQUEEGEE HEIGHT ADJUSTMENT

In order for the squeegee to pick up effectively, the height must be adjusted to give the correct amount of squeegee rubber contact with the floor. If the squeegee is too high or too low it will not pick up properly.

To adjust the height of the squeegee relative to the floor, turn the height adjustment knob (Figure 7) clockwise to lower the squeegee and increase pressure on the squeegee blades. To raise the squeegee and reduce pressure on the squeegee blades, turn the knob counterclockwise to the desired height. Refer to Figure 8 for the correct height adjustment for the squeegee.

**FIGURE 8**



## TRANSPORTING

The machine was designed to allow easy transportation with the use of strap slots machined into the machine's all steel frame. The strap slots are located on each side of the frame directly above the rear castors. When transporting, always strap the machine to the bed of the vehicle.

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## BATTERY CHARGING

**NOTE:** To prevent potential electrical arcing, the keylock switch must be in the off position before and during recharging of the batteries.

The Kent Battery Charger is electronically controlled. The charging rate will start high depending upon battery condition and gradually reduce as the batteries become charged. Eventually, the charger will reach a finish rate where its last 2 hours will be charging at 2 to 3 amps. The charger is equipped with a fuse for protection against a short circuit or reverse polarity of the batteries.

### To operate the battery charger:

- 1 Lift the recovery tank to allow ventilation to the battery compartment. Do not close the battery compartment during charging operation.

## WARNING!

Hydrogen gas is formed when the batteries approach the full charge state. This gas is explosive; therefore, when charging batteries with the recovery tank lifted open, avoid any open flame or electric spark near batteries. This includes connecting or disconnecting charger while charging. To avoid accumulation of gas, be sure the batteries receive good air circulation while being charged.

- 2 Connect the charger plug into the machine firmly. The machine's mating charger plug is mounted on the rear of the machine.

- 3 Plug the battery charger into a normal electrical outlet.

**NOTE:** Set the battery charger on a flat, hard surface to insure that cooling air can circulate through the bottom louvers.

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## BATTERY CARE

Battery care determines the life span and efficiency of the units; therefore, for the longest possible useful life from these batteries, the following procedure should be followed:

- 1 Keep battery solution (electrolyte) level up in cells. Check daily - if cells need water, use only distilled or approved water.
- 2 Keep batteries fully charged when not in use.
- 3 Keep batteries and terminals clean. When necessary, clean the terminals with a baking soda solution, then coat them with grease to retard corrosion.

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## BATTERY SERVICE & GUARANTEE

If a battery becomes unserviceable in normal use within 90 days of purchase, the purchaser is entitled to either a new battery of a comparable size and type or to the necessary repairs without charge for either labor or materials.

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## ADJUSTMENT POLICY

If a battery becomes unserviceable in normal use after the 90 day period, it will be repaired or exchanged with another battery of a comparable size and type to the original purchaser on a prorated price basis. If the battery requires repairing, the owner will be subject to service and transportation charges.

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## PRORATING SCALE AFTER 90 DAYS

To calculate the prorated value of the unserviceable batteries, use the formula below.

$(12 - \text{Months of Operation}) / 12 \times \text{Original Purchase Price} = \text{Exchange Value}$

Example: A battery that failed after its 5th month of use from the purchase date with a \$182.00 original cost.

$(12 - 5) / 12 \times \$182.00 = \$106.17$  Exchange Value

All batteries are guaranteed for twelve (12) months from date of receipt. (Subject to change without notice)

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## LIMITATIONS

Failure in service due to fire, wreckage, explosion, freezing, abuse or neglect, use of battery "dopes", or the use of a battery of a group size smaller than of the battery used as original equipment is not covered by the Service & Battery Guarantee. The Service & Battery Guarantee will not apply if battery has been opened or repaired or manufacturer's identification markings has been obliterated before presentation for adjustment or if battery has broken case or cover or if battery is discharged.

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# MAINTENANCE

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## LINT SCREEN

Vacuum motor performance may be reduced if lint accumulates on the lint screen. After each use or as needed, check the machine's lint screen for possible blockage due to lint build up. The lint screen is located on the vacuum tube, directly under the recovery tank lid (Figure 17).

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## MICROSTAT™ FILTER

High efficiency MICROSTAT™ filters are available as an option for this machine. MICROSTAT™ filters have been tested and proven to have a filtration efficiency of 99.94% on particles 0.3 microns and larger. These filters may be used in health related or other applications where stringent filtration is required. The MICROSTAT™ filter kit, part number 038303, includes one lint filter and twelve MICROSTAT™ filters.

To install the lint and MICROSTAT™ filter, remove the three vacuum motor mounting bolts and install the lint filter onto the vacuum motor -place one (1) MICROSTAT™ filter between the lint filter and the recovery tank. Once installed, replace the three mounting bolts.

For maximum filtration, replace the MICROSTAT™ filter every two weeks under heavy use.

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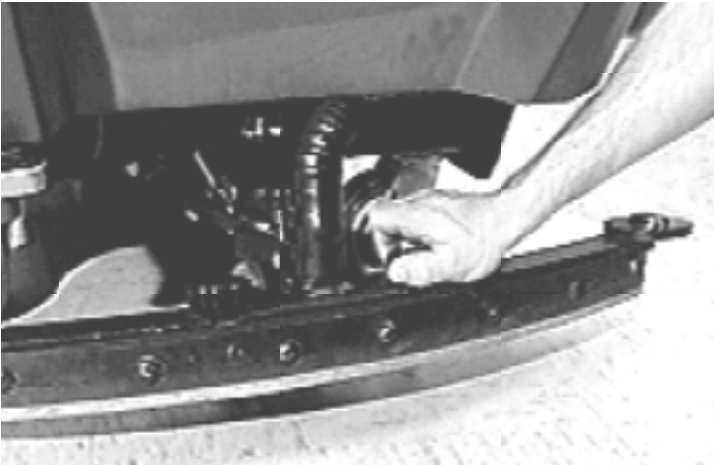
## REVERSING THE SQUEEGEE RUBBER

When the squeegee becomes worn, it will leave streaks of water on the floor. To regain squeegee performance, the squeegee has been designed to be reversed to allow two edges of the squeegee blade to be used. To reverse the squeegee blade, first, remove the squeegee from the machine by removing the two knobs (Figure 9).

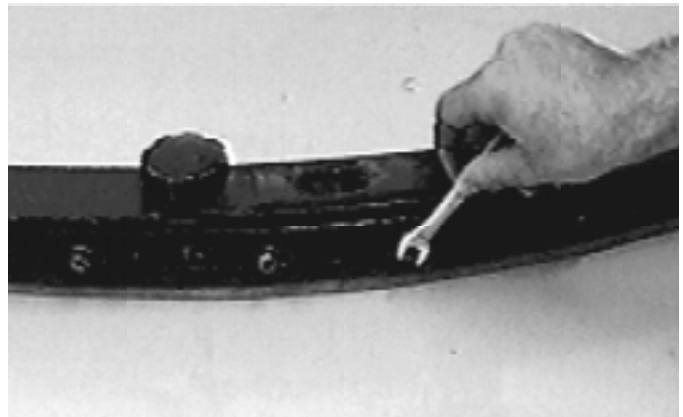
Next, remove the eight bolts that hold the squeegee assembly together (Figure 10).

After these bolts are removed, the squeegee can be disassembled, reversed, and reassembled. Once the squeegee is reassembled with a sharp corner edge toward the front of the squeegee, replace the eight bolts and reattach it to the machine.

**FIGURE 9**



**FIGURE 10**



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## SQUEEGEE RUBBER REPLACEMENT

If the squeegee rubber has been reversed and worn on both sides, it will have to be replaced to maintain maximum performance. To replace the old rubber blade with a new one, first, remove the squeegee from the machine by removing the two knobs (Figure 9).

Next, remove the eight bolts that hold the squeegee assembly together (Figure 10).

After these bolts are removed, the squeegee can be disassembled and reassembled with the new squeegee rubber. Once the squeegee is reassembled, replace the eight bolts and reattach it to the machine.

For information on squeegee accessory part numbers and ordering, refer to "ACCESSORIES".

# TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
1 Machine will not move.	1 Key is not turned in POWER position. 2 Battery condition low. 3 Speed set too low.	1 Turn keylock switch clockwise. 2 Check BATTERY CONDITION meter and charge batteries. 3 Adjust speed control knob.
2 Brush drive motor will not start.	1 Battery condition low. 2 Circuit breaker tripped. 3 Brush head not lowered.	1 Check voltmeter and charge batteries. 2 Reset by pushing circuit breaker button. 3 Lower the brush head to the floor.
3 Machine streaking a cleaned floor.	1 Debris lodged under rear squeegee blade. 2 Insufficient water flow to brushes. 3 Worn squeegee blades. 4 Worn brushes or pads. 5 Improper squeegee adjustment.	1 Raise squeegee and clean squeegee blade. 2 Clean screen and fresh solution tank and eliminate any restrictions in lines. 3 Replace squeegee blade. 4 Replace brushes or pads. 5 See "ADJUSTMENTS".
4 Vacuum suction blocked.	1 Clogged pickup tube. 2 Lint filter dirty. 3 Clogging at elbows and hose entering recovery tank.	1 Remove accumulations. 2 Clean lint filter. 3 Remove elbow and clean.
5 Short operating time.	1 Battery charge condition very low. 2 Corroded wires or connectors.	1 Recharge batteries fully before beginning operation. 2 Clean thoroughly.

Any electrical servicing must be performed by the dealer from which the machine was purchased or an authorized service station.



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