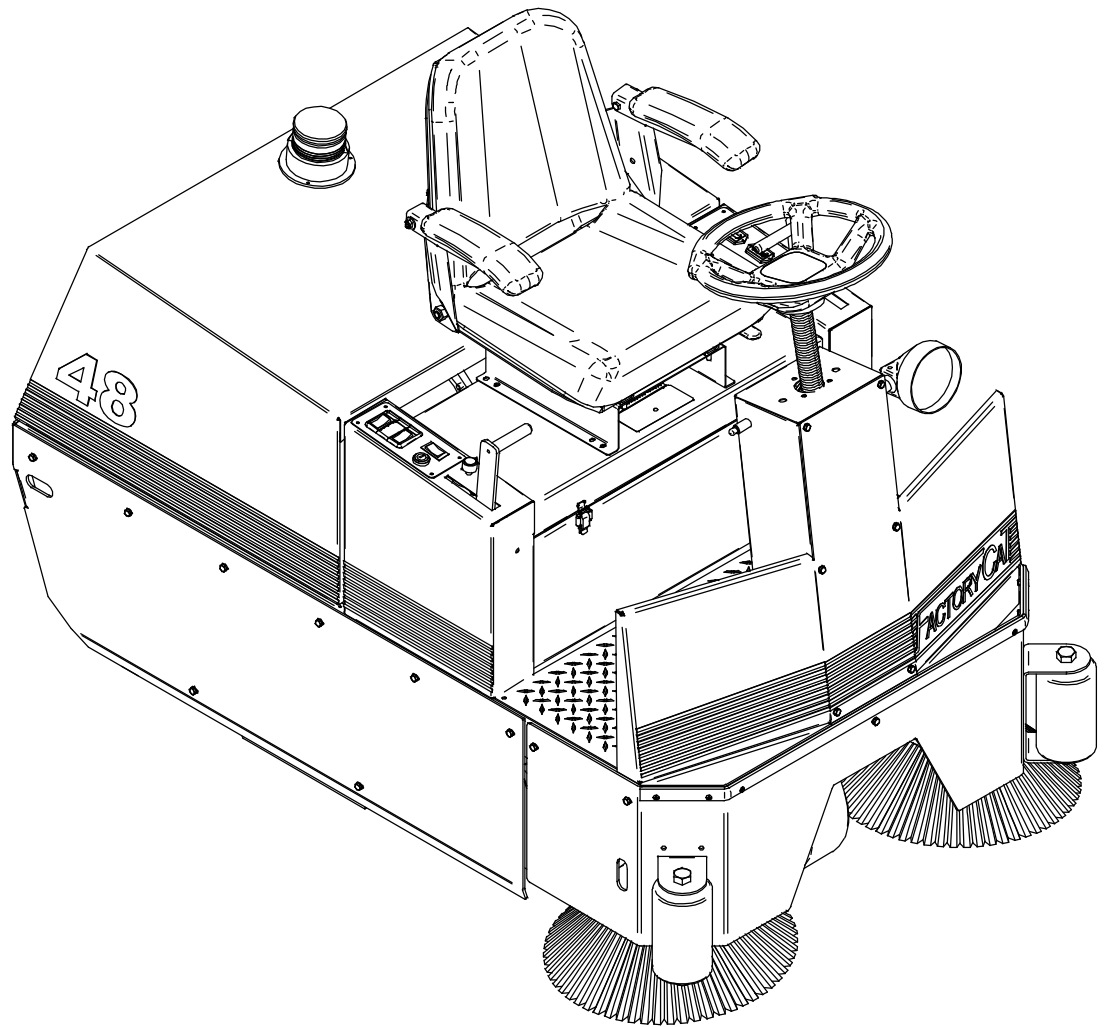




Operator and Parts Manual

48 Rider Sweeper

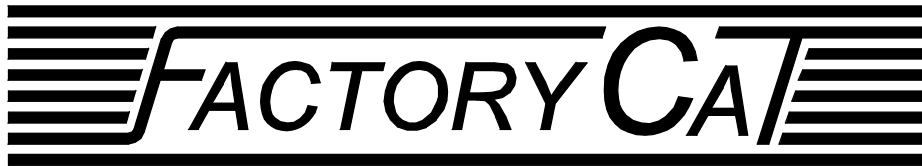


48
SERIES

R.P.S. Corporation
P.O. Box 368
Racine, Wisconsin 53401

Phone: 1-800-634-4060
Fax: 1-866-901-3335

www.factorycat.com



48 RIDER SWEEPER

THE TOMCAT 48 RIDER SWEEPER IS THE TOUGHEST COMPACT RIDER SWEEPER AVAILABLE, WITH STEEL CONSTRUCTION SO IT WILL BE WORKING YEARS FROM NOW, EVEN IN ABUSIVE ENVIRONMENT.

DEBRIS ON THE FLOOR LIKE WOOD CHIPS, CARPETING LINT, POPCORN, LEAVES, METAL PIECES, BROKEN GLASS, SAND, FINE CONCRETE DUST, AND TALCUM POWDER ARE PICKED UP IN A SINGLE PASS. THE MATERIAL IS SWEEPED UP BY THE POWERFUL MAIN BROOM, AND THROWN INTO THE RUGGED HOPPER. THE HOPPER SLIDES OUT THE SIDE OF THE MACHINE FOR EASY DISPOSAL OF DEBRIS WHEN ITS FULL.

OUR "ONE TOUCH SWEEPING" AND CENTRAL COMMAND II KEEP THE MAIN BROOM'S PRESSURE AT ONE OF FIVE SETTINGS, SO YOU WILL NOT HAVE TO ADJUST OR REVERSE IT, AND THE BROOM AUTOMATICALLY ADJUSTS TO IRREGULAR FLOORS.

THE DUST CONTROL ON THE FACTORY CAT 48 IS THE INDUSTRY LEADER. OUR EXCLUSIVE "BAGHOUSE" STYLE FILTER ENABLES THE MACHINE TO SWEEP THROUGH AN 80 POUND BAG OF CEMENT POWDER AND NOT BLOW DUST. THE FILTER'S HIGH CAPACITY DESIGN IS SIMILAR TO THE DUST COLLECTION SYSTEM ON STREETSWEEPERS, NOT VACUUM CLEANERS.

OUR 250 CFM FAN MOVES HIGH VOLUMES OF AIR, BUT AT A LOWER VELOCITY. THIS ALLOWS EXCELLENT DUST CONTROL, EVEN WITH A "DIRTY FILTER". THE LINT FROM CARPETING OR TENNIS COURTS IS EASILY CONTAINED IN THE LONG LIFE FILTER. THE FILTER IS CLEANED AT THE TOUCH OF A BUTTON.

THE FACTORY CAT 48 HAS A POWERFUL 2.0 HP SEALED DRIVE MOTOR FOR CLIMBING STEEP RAMPS, AND THE NON-MARKING TIRES PROTECT EXPENSIVE FLOORS. THE OPERATOR'S HIGH BACK SEAT INCLUDES ARMREST, IS ADJUSTABLE, AND THE PARKING BRAKE SETS AUTOMATICALLY.

THE UNIT IS BATTERY POWERED, AND WILL RUN UP TO A FULL SHIFT ON A CHARGE. THE CHARGER IS FULLY AUTOMATIC, AND PLUGS INTO 110 VOLT OUTLET.

TABLE OF CONTENTS

| | | | |
|----------------------------------|------------|-------------------------------------|------------|
| MACHINE INFORMATION FORM | PAGE 1 | <u>PARTS BREAKDOWN ILLUSTRATION</u> | |
| MACHINE DELIVERY FORM | PAGE 2 | | |
| MACHINE SPECIFICATIONS | PAGE 3 | | |
| COMMON WEAR PARTS | PAGE 4 | FRAME TOP | PAGE 21-22 |
| SAFETY MESSAGES | PAGE 5 | FRAME BOTTOM | PAGE 23-24 |
| !!SAFETY PRECAUTIONS!! | PAGE 6 | CENTRAL COMMAND | PAGE 25-26 |
| MACHINE FEATURES AND CONTROLS | PAGE 7-8 | DRIVE SYSTEM | PAGE 27-28 |
| MACHINE PREPARATION | PAGE 9 | MAIN BROOM AND LINKAGE | PAGE 29-30 |
| MACHINE SETUP | PAGE 10 | SIDE BROOM AND LINKAGE | PAGE 31-32 |
| PRE-SWEEPING CHECK LIST | PAGE 11 | VACUUM AND FILTER SYSTEM | PAGE 33-34 |
| OPERATION | PAGE 12 | HOPPER | PAGE 35-36 |
| OPERATING HINTS | PAGE 12 | ACCESSORIES | PAGE 37-38 |
| CHARGING BATTERIES | PAGE 13 | WIRING DIAGRAMS | PAGE 39-40 |
| MAINTENANCE | PAGE 14 | | |
| STORING MACHINE | PAGE 14 | | |
| PREVENTATIVE MAINTENANCE RECORDS | PAGE 15-17 | | |
| TOUBLE SHOOTING | PAGE 18-19 | | |
| PARTS BREAKDOWN | PAGE 20-38 | | |

MACHINE INFORMATION

PLEASE FILL THIS AREA OUT AT THE TIME OF INSTALLATION FOR FUTURE REFERENCE.

MODEL NUMBER: _____

SERIAL NUMBER: _____

INSTALLATION DATE: _____

INSTALLING DEALER: _____

DEALER CONTACT: _____

ADDRESS: _____

CITY, STATE, ZIP: _____

PHONE NUMBER: _____

THIS OPERATORS AND PARTS MANUAL SHOULD BE CONSIDERED A PERMANENT PART OF THE UNIT AND SHOULD REMAIN WITH THE UNIT AT ALL TIMES. THIS OPERATORS AND PARTS MANUAL COVERS ALL THE DFACTORY CAT 48 SERIES RIDER SWEEPERS. YOU MAY FIND DESCRIPTIONS AND FEATURES THAT ARE NOT ON YOUR PARTICULAR MODEL. THE INFORMATION AND SPECIFICATION INCLUDED IN THIS PUBLICATION WERE IN EFFECT AT THE TIME OF PRINTING. R.P.S. CORPORATION RESERVES THE RIGHT TO MAKE CHANGES WITHOUT NOTICE INCURRING ANY OBLIGATION.

TO REGISTER FOR WARRANTY, FAX YOUR DELIVERY FORM TODAY!



R.P.S. CORPORATION
P.O. BOX 368
RACINE, WI 53401
PHONE: 800-450-9824
FAX 866-632-6961
WWW.FACTORYCAT.COM

MACHINE DELIVERY FORM

DEALER: _____

SERIAL NUMBER: _____

LOCATION (CITY, STATE): _____

INSTALL DATE: _____

CUSTOMER: _____

HOURL METER: _____

CONTACT: _____

INSTALLED BY: _____

ADDRESS: _____

CITY: _____ STATE _____ ZIP _____

PHONE: _____ FAX: _____

TOMCAT MODEL NUMBER: _____

OPTIONS: 1. _____

4. _____

2. _____

5. _____

3. _____

6. _____

BRUSHES: _____

BROOM: _____

SOAP: _____

BUYER'S REPRESENTATIVE HAS:

1. RECEIVED INSTRUCTION IN PROPER OPERATION OF THIS MACHINE.
2. RECEIVED OPERATOR'S MANUAL FOR THIS MACHINE.
3. BEEN MADE AWARE THAT ANY OPERATOR SHOULD READ THE MANUAL BEFORE OPERATING THIS MACHINE.

DEALER REP. PRINT: _____

SIGN: _____

CUSTOMER PRINT: _____

SIGN: _____

MODEL

48

BODY CONSTRUCTION/DIMENSIONS

CHASSIS CONSTRUCTION: 3/16" STEEL
REAR WHEELS: (2) 15" X 4"
FRONT WHEEL: 10" X 3"
SIZE (L X W X H): 64 X 37 X 50
WEIGHT (WITHOUT BATTERIES): 850 LBS.
WEIGHT (WITH BATTERIES): 1,312 LBS

SWEEPING SYSTEM

SWEEPING METHOD: DIRECT THROW
MAIN BROOM DIAMETER: 10 INCHES
MAIN BROOM LENGTH: 32 INCHES
MAIN BROOM MOTOR HORSEPOWER: 1.0 HP
MAIN BROOM SPEED: 400 RPM
MAIN BROOM SUSPENSION: TRAILING ARM
SIDE BROOM SIZE: (2) 17 INCHES
SIDE BROOM POWER: (2) 0.3 HP
SIDE BROOM SPEED: 0-95 RPM
HOPPER CAPACITY: 4.0 CUBIC FEET
HOPPER MATERIAL: STEEL (COATED)

FILTERING SYSTEM

FILTER MATERIAL: POLYMER FELT
FILTER RATING: 2.5 TO 1 MICRON (STANDARD)
1.0 TO .02 MICRON (OPTIONAL)
SIZE: 150 SQ. INCHES
VACUUM RATING: 250 CFM

BATTERY SYSTEM

BATTERY COUNT: 2 OR 4
BATTERY AH RATING: 185 AH OR 370 AH
BATTERY DESCRIPTION: 24 VOLT DEEP CYCLE
BATTERY RUN TIME: 5 TO 8 HRS.
CHARGER (AUTOMATIC): 24 AMP, 110 VOLT
40 AMP, 110 VOLT

DRIVE SYSTEM

TRANSAXLE DESCRIPTION: 2.0 HP, SEALED
SPEED CONTROL: VARIABLE 0-320 FT.
NOISE LEVEL: 70 dBA

PRODUCTIVITY

CLEANING WIDTH: 48 INCHES
CLEANING RATE/HOUR (MAX): 60,000 SQ. FT/HR
CLEANING RATE/HOUR (NORMAL): 55,000 SQ. FT/HR

WARRANTY

PARTS: 3 YEARS
LABOR: 1 YEAR

COMMON WEAR PARTS

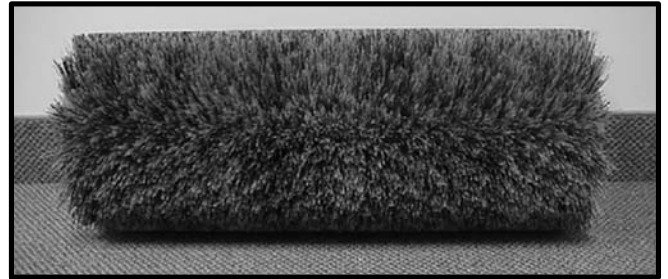
ITEM

MODEL 48

WE RECOMMEND YOU USE OUR BROOMS. THEY ARE MADE FOR YOUR MACHINE. OUR BRAND OF BROOMS HAS A PRECISION PLASTIC CORE THAT IS CAREFULLY BALANCED AND HAS MACHINED INSERT POINTS SO THE BROOM FITS TIGHTLY ON THE MACHINE'S HUBS. BROOMS MADE BY "WILL FIT" COPANIES TO FIT OUR MACHINES ARE OFTEN MADE WITH ROUGH DRAIN-PIPE CORES. THEY OFTEN BOUNCE EVEN WHEN NEW. BOUNCING BROOMS DO NOT SWEEP.

MAIN BROOM

| | |
|----------------|---------|
| UNION | 8-401 U |
| NYLON | 8-401 N |
| POLY | 8-401 |
| CARPET | 8-401NN |
| WIRE | 8-401W |
| UNION STEEL | 8-401US |
| POLY AND STEEL | 8-401S |

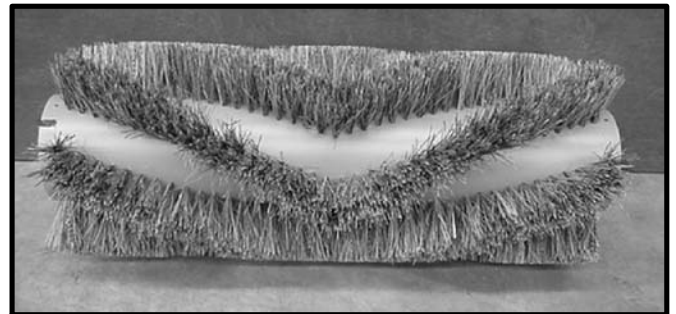


*DOUBLE FIBER VEE-BROOM.
USED MORE FOR CARPETED FLOORS*

SIDE BROOM

QUANTITY REQUIRED (2) 17 INCH BROOMS

| | |
|----------------|---------|
| POLY | 4-402 |
| NYLON | 4-402 N |
| POLY AND STEEL | 4-402 S |



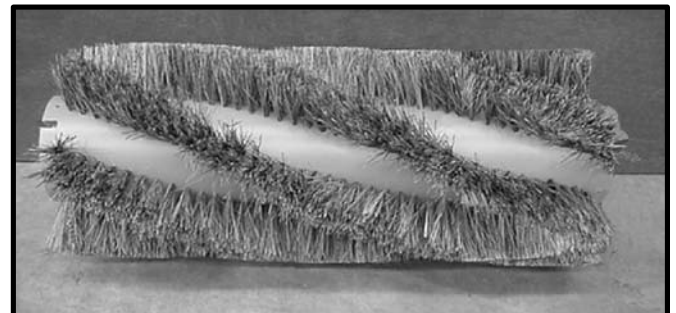
VEE-BROOM. PREFERRED STYLE

FLAPS KITS

8-570

HOPPER FLAP

| | |
|-----------|---------|
| 1/8 INCH | 8-571 H |
| 1/16 INCH | 8-571 |
| 1/32 INCH | 8-571 L |



*SPIRAL-BROOM. DOES NOT SWEEP
AS WELL AS VEE BROOM.*

KIT INCLUDES: (1) HOPPER FLAP, (1) RIGHT SIDE, (1) LEFT SIDE AND (1) REAR FLAP

NOTE: CECK YOUR HOPPER FLAP FOR THCKNESS. THE THIN (1/32 INCH) FLAP WORKS BEST ON LIGHT DEBRIS, BUT IT CAN BE MORE EASILY DAMAGED. THE STANDARD SIZES ARE (1/16 INSH)

SAFETY MESSAGES

YOUR SAFETY, AND THE SAFETY OF OTHERS, IS VERY IMPORTANT, AND OPERATING THIS UNIT SAFELY IS AN IMPORTANT RESPONSIBILITY.

TO HELP YOU MAKE INFORMED DECISIONS ABOUT SAFETY, WE HAVE PROVIDED OPERATING PROCEDURES AND OTHER SAFETY INFORMATION IN THE MANUAL. THIS INFORMATION INFORMS YOU OF POTENTIAL HAZARDS THAT COULD HURT YOU OR OTHERS.

IT IS NOT PRACTICAL OR POSSIBLE TO WARN YOU OF ALL THE HAZARDS ASSOCIATED WITH OPERATING THIS UNIT. YOU MUST USE YOUR OWN GOOD JUDGEMENT.

THIS IS INTENDED FOR COMMERCIAL USE. IT IS DESIGNED TO BE USED ON HARD FLOORS IN AN INDOOR ENVIRONMENT, WITH THE RECOMMENDED BRUSHES.

1. DO NOT OPERATE UNIT:

UNLESS TRAINED AND AUTHORIZED.
UNLESS OPERATOR MANUAL IS READ AND UNDERSTOOD.
IF UNIT IS NOT PROPER CONDITION.

2. WHEN OPERATING UNIT:

KEEP HANDS AND FEET AWAY FROM REVOLVING SIDE BROOMS.
DO NOT OPERATE MACHINE WHERE FLAMMABLE LIQUIDS ARE PRESENT.
USE EXTREME CAUTION WHEN MANUEVERING.

3. BEFORE LEAVING:

MAKE SURE MACHINE IS TURNED OFF.
STOP ON LEVEL SURFACES.
DISCONNECT BATTERIES.

4. BEFORE SERVICING:

STOP ON LEVEL SURFACE, AND SECURE MACHINE.
DISCONNECT BATTERIES.

!! SAFETY PRECAUTIONS!!

WARNING: HAZARDOUS VOLTAGE. SHOCK, BURNS OR ELECTROCUTION CAN RESULT. ALWAYS DISCONNECT THE BATTERIES BEFORE SERVICING MACHINE.

WARNING: BATTERIES EMIT HYDROGEN GASES, EXPLOSION OR FIRE CAN RESULT. KEEP SPARKS AND OPEN FLAMES AWAY.

WARNING: CHARGE UNIT IN A WELL VENTILATED AREA, AND KEEP BATTERY COMPARTMENT OPEN WHEN CHARGING. EXPLOSION OR FIRE COULD RESULT.

WARNING: BATTERY ACID CAN CAUSE BURNS. WEAR PROTECTIVE EYE WEAR AND GLOVES WHEN SERVICING BATTERIES.

WARNING: DO NOT STORE OUTDOORS OR PRESSURE WASH. PREVENT ELECTRONIC COMPONENTS FROM GETTING WET.

WARNING: THE USE OF PARTS AND SOLUTIONS OTHER THAN RECOMMENDED BY THE MANUFACTURER MAY CAUSE DAMAGE OR ENDANGER PEOPLE.

WARNING: DRESS SAFELY. DO NOT WEAR RINGS OR METAL WRIST WATCHES WHILE WORKING ON THIS MACHINE. THEY CAN CAUSE AN ELECTRICAL SHORT, WHICH, CAN CAUSE SERIOUS BURNS. DO NOT WORK ON THIS MACHINE WHILE WEARING A TIE, SCARF OR OTHER LOOSE, DANGLING NECKWARE OR CLOTHING. THESE LOOSE ITEMS CAN TANGLE IN THE ROTATING PARTS AND CAUSE SERIOUS INJURY OR EVEN DEATH.

WARNING: DO NOT USE THE MACHINE AS A STEP LADDER OR CHAIR.

WARNING: ONLY OPERATE THIS MACHINE FROM THE OPERATOR'S SEAT. IT WAS NOT DESIGNED TO CARRY PASSENGERS.

WARNING: DO NOT OPERATE THIS MACHINE ON RAMPS OR UNEVEN SURFACES. WHEN CLIMBING A RAMP, ALWAYS DRIVE THE MACHINE IN FORWARD STRAIGHT UP OR DOWN THE RAMP. NEVER DRIVE ACROSS THE INCLINE. DO NOT BACK DOWN OR TURN ON RAMPS!

WARNING: ALWAYS USE THE CHARGER PROVIDED BY THE MAUFACTURER TO CHARGE THE MACHINE. IT IS AN AUTOMATIC CHARGER, SPECIFICALLY DESIGNED TO CHARGE AT THE APPROPRIATE RATE. IF YOU MUST USE A DIFFERENT CHARGER, DISCONNECT THE BATTERIES BEFORE CHARGING. THIS WILL PRVENT DAMAGE TO THE ELECTRONIC SPEED CONTROLLER.

WARNING: UNDERSTAND THE DYNAMIC BRAKING SYSTEM BEFORE YOU OPERATE THE MACHINE ON RAMPS. MACHINE DOES NOT COAST. RELEASING THE FOOTPEDAL WILL AUTOMATICALLY APPLY BRAKING FORCE, AND STOP THE MACHINE.

WARNING: DO NOT PARK THE MACHINE ON RAMPS OR SLOPES. THE MACHINE HAS A PARKING BRAKE, BUT IT IS RECOMMENDED THAT IS ALWAYS BE PARKED ON LEVEL GROUND.

WARNING: DO NOT OPERATE THE MACHINE IF ANY PARTS HAVE BEEN REMOVED OR DAMAGED.

WARNING: DO NOT REMOVE, PAINT OVER, OR DESTROY WARNING DECALS. IF WARNING DECALS BECOME DAMAGED, THEY MUST BE REPLACED.

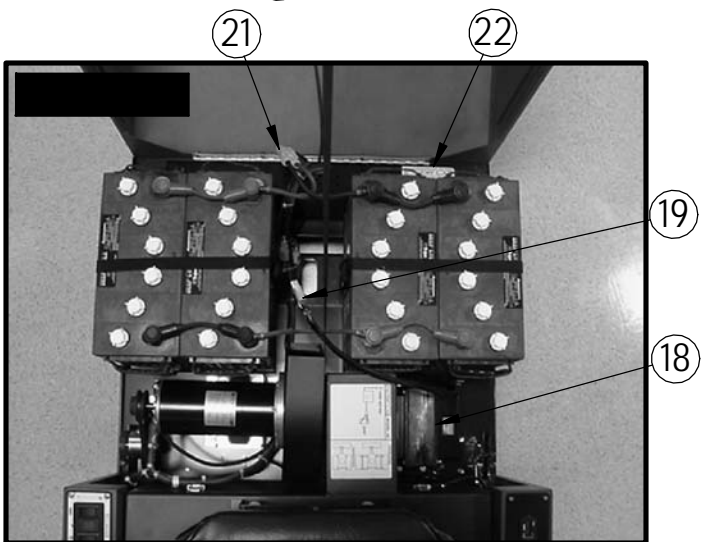
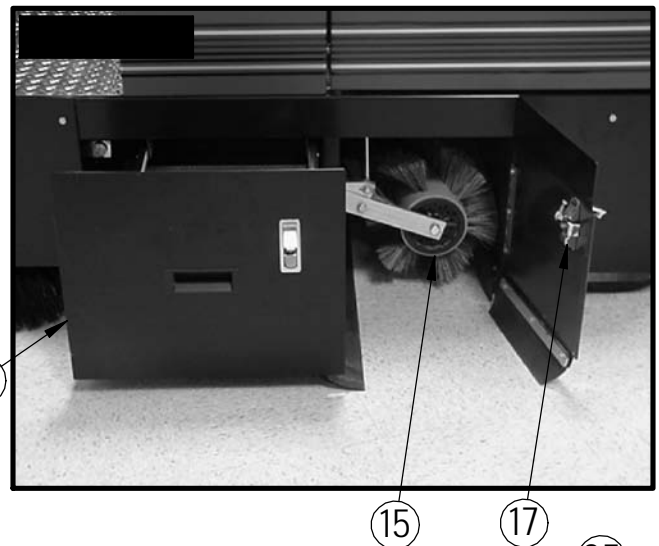
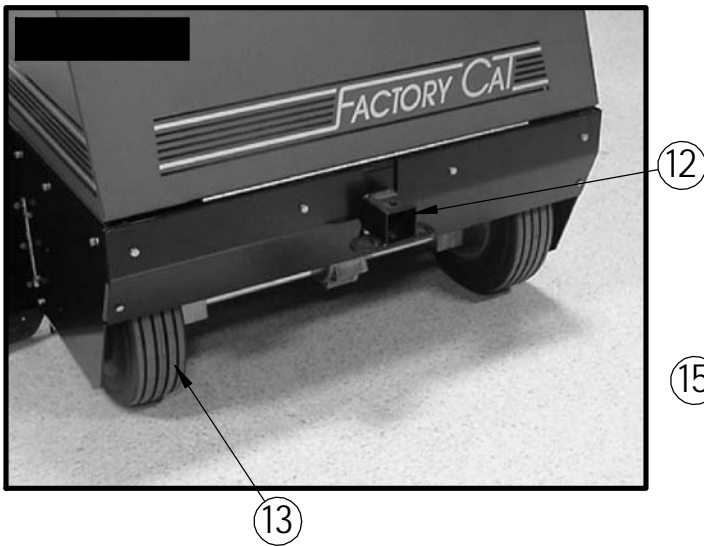
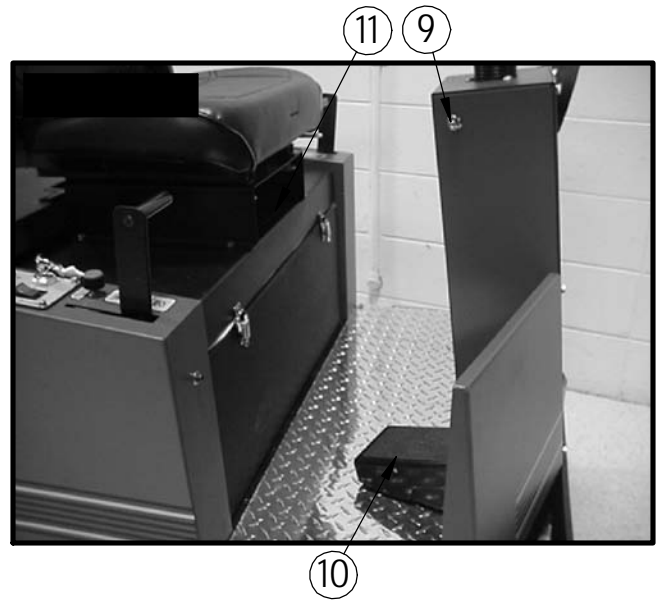
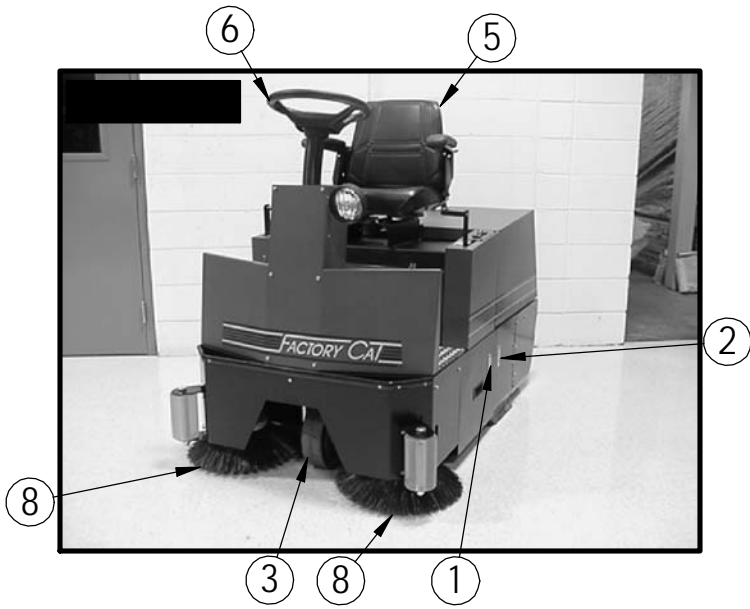
WARNING: DO NOT OPERATE MACHINE IN UNSAFE CONDITION. IF THE MACHINE IS IN NEED OF REPAIR OR IS IN ANY WAY UNSAFE TO OPERATE, THE MATTER SHOULD BE REPORTED IMMEDIATELY TO THE SHIFT SUPERVISOR. DO NOT OPERATE THE MACHINE UNTIL IT IS RETURNED TO PROPER OPERATING CONDITION.

WARNING: THIS MACHINE MUST ONLY BE OPERATED BY TRAINED OPERATOR. AS PART OF HIS OR HER TRAINING, THEY MUST READ THIS MANUAL THOROUGHLY. IF EXTRA COPIES ARE NEEDED, CONTACT YOUR LOCAL DEALER.

WARNING: ALWAYS TURN OFF THE MACHINE, BEFORE LEAVING IT UNATTENDED.

WARNING: DO NOT SWEEP OVER ELECTRICAL FLOOR OUTLETS. MAY RESULTS IN SERIOUS INJURY.

MACHINE CONTROLS AND FEATURES



CONTROLS AND FUNCTIONS

SEE FIG. (1-7) ON PAGE 7

FIGURE 1.

1. HOPPER LATCH: KEEPS HOPPER IN PLACE.
2. ACCESS PANEL LATCH: GIVES YOU QUICK ACCESS TO MAIN BROOM.
3. FRONT WHEEL: STEERS MACHINE.
4. HEADLIGHT: HELPS YOU SEE IN LOW LIGHT AREAS AND TO WARN ONCOMING TRAFFIC..
5. SEAT: ADJUSTABLE SEAT FOR OPERATOR COMFORT AND EASE OF ENTRY.
6. STEERING WHEEL: USED TO STEER THE MACHINE.
7. STROBE LIGHT: SAFETY LIGHT.
8. SIDE BROOMS: HELPS CLEAN AGAINST WALLS AND OBJECTS.

FIGURE 2.

9. HORN BUTTON: SOUNDS HORN.
10. FOOT PEDAL: MAKES MACHINE GO.
11. WET SWEEP BY-PASS: YOU SWEEP OVER WATER WITHOUT SUCKING THE WATER UP INTO THE FILTER.

FIGURE 3.

12. HITCH RECEIVER: ALLOWS YOU TO HOOK UP AND TOW R.P.S. SUPPLIED ACCESSORIES ONLY.
13. REAR TIRES: PROVIDE POWER THROUGH TRANSAXLE TO DRIVE MACHINE.
14. AUX. POWER PLUG: ALLOWS YOU TO HOOK UP EXTERNAL R.P.S. SUPPLIED ACCESSORIES ONLY.

FIGURE 4.

15. HOPPER: HOLDS DEBRIS AND IS REMOVABLE FOR EASY DISPOSAL.
16. MAIN BROOM: SWEEPS DEBRIS INTO HOPPER.
17. BROOM ACCESS PANEL: PROVIDES EASY ACCESS TO MAIN BROOM.

FIGURE 5.

18. CHARGER: RECHARGES BATTERIES FOR FUTURE USE.
19. CHARGER HOOK-UP: PLUGS INTO PACK TO CHARGE UNIT.
20. BATTERIES: PROVIDE POWER TO RUN MACHINE.
21. BATTERY DISCONNECT: BREAKS POWER FROM BATTERIES TO MACHINE.
22. CENTRAL COMMAND: BRAIN BOX OF THE MACHINE.
23. BACK UP ALARM: SOUNDS WHEN MACHINE IS IN REVERSE.
24. MAIN BROOM/FAN MOTOR: PROVIDES POWER TO MAIN BROOM AND VACCUM SYSTEM.

FIGURE 6.

25. MAIN BROOM HANDLE: LIFTS AND LOWERS MAIN BROOM.
26. HOUR METER: COUNTS HOW MANY HOURS THE MACHINE HAS BEEN RUN.
27. BATTERY CONDITION METER: SHOWS THE CHARGE LEFT ON THE BATTERIES.

FIGURE 7.

28. SIDE BROOM HANDLE: LIFTS AND LOWERS SIDE BROOMS.
29. SIDE BROOM RHEOSTAT: ADJUSTS ROTATION SPEED OF SIDE BROOMS.
30. KEY SWITCH: TURNS POWER TO MACHINE ON AND OFF.
31. FORWARD/REVERSE SWITCH: SWITCHES THE DIRECTION OF THE MACHINE FORWARD AND BACKWARDS.
32. SIDE BROOM ON/OFF SWITCH: TURNS SIDE BROOMS ON AND OFF.
33. FILTER SHAKER SWITCH: SHAKES DEBRIS FROM FILTER AND DROPS THEM INTO HOPPER.
34. POWER INDICATOR LIGHT: TELLS IF THE MACHINE IS TURNED ON.
35. SIDE BROOM ADJUSTMENT: ADJUSTS HEIGHT OF SIDE BROOMS.

MACHINE PREP

UNCREATING MACHINE

CAREFULLY CHECK THE CRATE FOR ANY SIGNS OF DAMAGE. BATTERIES ARE IN THE UNIT.

TO UNCREATE THE MACHINE, REMOVE BANDING FROM AROUND THE CRATE. TAKE OFF THE TOP AND SIDES AND DISPOSE OF PROPERLY. REMOVE BANDING FROM MACHINE. REMOVE THE CHOCKS AROUND THE DRIVE WHEELS. FOLD DOWN RAMP, AND ROLL MACHINE OFF OF THE BASE. NOTIFY THE CARRIER IMMEDIATELY IF CONCEALED DAMAGE IS DISCOVERED.

CONNECTING BATTERIES

YOUR MACHINE IS EQUIPPED WITH (TWO) OR (FOUR) 12 VOLT, DEEP CYCLE, 185 AMP HOURS BATTERIES, WHICH FORM A 24 VOLT SYSTEM.

1. TURN ALL SWITCHES TO THE OFF POSITION AND REMOVE KEY.
2. OPEN REAR HOOD TO ACCESS THE BATTERY COMPARTMENT.
3. BOTH OF THE TWO BATTERY CABLES ARE CONNECTED TO THE BATTERIES. LOCATE THE GREY 50 CONNECTOR AND CONNECT THE TWO. (SEE FIGURE 8.)
4. TURN ON MAIN POWER SWITCH AND CHECK THE BATTERY CONDITION METER TO ENSURE CORRECT INSTALLATION. CHARGE BATTERIES IF NEEDED. (SEE: BATTERY CHARGING)



ATTACHING SIDE BROOMS

1. LOWER THE SIDE BROOM LINKAGE BY PULLING BACK ON THE LEVER AND THEN SLIDING THE LEVER ALL THE WAY TO THE REAR. (SEE FIGURE 9.)



2. REMOVE THE SIDE BROOMS FROM THE SHIPPING BOX.
3. INSTALL THE SIDE BROOMS ONTO THE MOTOR SHAFT, BY SLIDING THEM UPWARDS. LINE UP THE HOLES AND INSTALL THE CLEVIS PIN WITH SAETY CLIP (SEE FIGURE 10.)
4. YOU MAY NEED TO ADJUST THE SIDE BROOM HEIGHT, BY USING THE ADJUSTMENT SCREW.



MACHINE SETUP

REPLACING MAIN BROOM

1. TURN THE MACHINE OFF. USE A 9/16 INCH WRENCH TO REMOVE THE 3/8-16 HCS SCREW AND REMOVE THE IDLER ARM. (SEE FIGURE 11.)



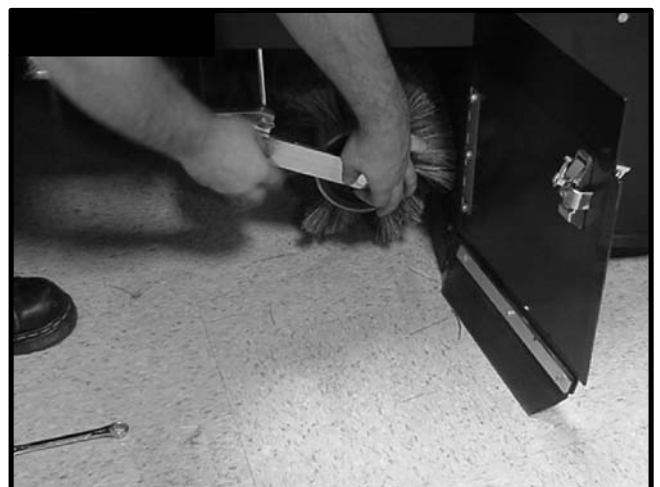
2. THE MAIN BROOM SHOULD SLIDE OUT THE SIDE OF THE MACHINE EASILY. (SEE FIGURE 12.)



3. SLIDE THE NEW BROOM IN. WHEN YOU GET THE BRUSH ON THE DRIVER SPIN IT WITH YOUR HAND UNTIL YOU FEEL IT CATCH ON THE DRIVER AND THEN PRESS IN COMPLETELY ON. (SEE FIGURE 13.)



4. WHEN THE MAIN BROOM COMPLETELY INSTALLED REPLACE THE IDLER ARM AND THE FASTENERS. THE ARM SHOULD GO ON EASILY, AND METAL TO METAL. IF THERE IS ANY GAPS LEFT BEFORE TIGHTENING, IT HAS NOT BEEN INSTALLED PROPERLY. (SEE FIGURE 14.)



WARNING: IF THE BROOM IS NOT FULLY ENGAGED WITH THE DRIVERS, THE BRUSHES WILL BE DAMAGED. DO NOT FORCE THE IDLER ARM BACK ON. THIS USUALLY INDICATES IMPROPER INSTALLATION

NOTE: SELECT THE BROOM FIBER THAT BEST MEETS YOUR CLEANING APPLICATION CONSULT YOUR LOCAL DEALER FOR ASSISTANCE. (SEE BRUSH TYPES ON PAGE 4.)

PRE- SWEEPING CHECK LIST

READ AND UNDERSTAND SAFETY INSTRUCTIONS ON PAGE 5 AND 6
BEFORE OPERATING THIS MACHINE

1. CHECK BATTERY CONDITION ON BATTERY CONDITION METER. MAKE SURE BATTERIES ARE FULLY CHARGED BEFORE USING. (SEE FIGURE 15.)



2. CHECK CONDITION OF MAIN BROOM AND MAKE SURE IT IS SECURELY IN PLACE.
3. REMOVE ALL STRING BANDING, OR ANYTHING WOUND AROUND THE IDLER PULLEY AND BEARING. (SEE FIGURE 16.)



4. CHECK CONDITION OF SIDE BROOMS AND MAKE SURE THEY LIFT AND LOWER CORRECTLY.
5. CHECK THE SIDE BROOMS TO SEE IF THEY ARE AT THE CORRECT SETTING FOR SWEEPING. (SEE FIGURE 17.)



6. CLEAN THE FILTER BY PRESSING THE SHAKER SWITCH FOR ABOUT 10 SECONDS. (SEE FIGURE 18.)



7. PRESS THE HOPPER LATCH, ON THE LEFT SIDE OF THE MACHINE. REMOVE THE HOPPER FROM THE MACHINE. (SEE FIGURE 19.)



8. EMPTY THE HOPPER INTO A TRASH RECEPTICLE.
9. INSTALL THE HOPPER BACK INTO THE MACHINE AND DEPRESS THE HOPPER LATCH. (SEE FIGURE 20.)



OPERATION

ONE PASS SWEEPING

1. TURN MACHINE ON WITH THE KEYSWITCH.
2. TURN ON THE FILTER BEATER FOR ABOUT SECONDS TO CLEAR THE FILTER.



3. LOWER MAIN BROOM TO THE FLOOR, PULLING BACK ON LEVER AND THEN SLIDING THE LEVER ALL THE WAY TO THE REAR.



4. TURN ON DUST CONTROL SYSTEM AGAIN USE THE TOP HALF (1) OF THE FAN SWITCH.
5. LOWER SIDE BROOMS TO THE FLOOR.



6. BEGIN SWEEPING BY DEPRESSING THE FOOT PEDAL SLOWLY AND THEN TO THE SPEED REQUIRED.
7. ONCE THE MAIN BROOM BEGINS TO MOVE, CHECK THE PRESSURE GAUGE.
8. TO OPERATE MACHINE IN REVERSE, SIMPLY SWITCH THE REVERSE SWITCH TO THE REVERSE POSITION.
9. TO STOP THE MACHINE, LET OFF OF THE FOOT PEDAL, AND THE MACHINE WILL STOP AUTOMATICALLY.

OPERATING HINTS

1. OBSERVE THE SPEED OF THE MACHINE AND ADJUST TO THE DESIRED RATE. TO INCREASE THE SPEED, DEPRESS THE FOOTPEDAL MORE. TO STOP THE MACHINE, LET OFF THE FOOTPEDAL AND THE BRAKE WILL AUTOMATICALLY BE APPLIED.
2. KEEP AN EYE ON THE VACUUM MOTOR TO MAKE SURE THERE IS NO DUST BLOW-THRU. IF DUST BEGINS TO DEVELOP, THE FILTER SHOULD BE CLEANED. PRESS THE FILTER SHAKER SWITCH TO CLEAN THE FILTER.
3. ALWAYS OPERATE AT LOWER SPEEDS WHEN SWEEPING AROUND WALLS AND OBJECTS. YOU SHOULD REDUCE THE SPEED, TO MAINTAIN CONTROL WHEN TURNING.
4. IF THE MACHINE STARTS TO TRAIL, STOP AND EMPTY THE HOPPER. IF THE TRAILING DEBRIS CONTINUES, YOU MAY NEED TO REPLACE THE SKIRTS THAT SURROUND THE SWEEPING CHAMBER.
5. CHANGE THE BRUSHES WHEN WORN TO A FIBER LENGTH OF 1 INCH.
6. STAY CLEAR OF OBJECTS PROTRUDING FROM THE FLOOR, SUCH AS SOCKETS, AND PIPES, FOR THEY CAN DAMAGE THE LOWER SKIRTS.
7. YOU SHOULD TRY TO AVOID WATER, OIL AND, OTHER LIQUIDS SPILLED ON THE FLOOR. BE SURE TO USE THE WET SWEEP BY-PASS WHEN SMALL AMOUNTS OF MOISTURE ARE ENCOUNTERED.
8. ALWAYS KEEP AN EYE ON YOUR GAUGES. THEY ARE THERE TO HELP YOU CLEAN MORE EFFICIENTLY, BY LETTING YOU KNOW THE STATUS OF THAT PARTICULAR SYSTEM AT A GLANCE. IF YOUR BATTERY GAUGE IS READING LOW, YOU MUST STOP IMMEDIATELY, AND RECHARGE. RUNNING THE BATTERY DEAD, WILL RESULT IN DAMAGE TO THE BATTERIES.
9. KEEPING THE EXTERIOR APPEARANCE OF THE MACHINE IN GOOD CONDITION, WILL GENERALLY ENCOURAGE OTHERS TO TREAT THE MACHINE WITH MORE CARE.
10. WHEN YOU ARE READY TO STOP, PICK UP THE BROOMS, DRIVE THE MACHINE BACK TO THE CHARGING AREA AND BE SURE TO TURN OFF THE POWER SWITCH. BE SURE TO EMPTY THE HOPPER AND CLEAN THE FILTER BEFORE STORING.

BATTERY CHARGING

CAUTION: THE FOLLOWING INSTRUCTIONS ARE INTENDED FOR THE 24V CHARGER SUPPLIED WITH THE MACHINE. DO NOT USE ANY OTHER CHARGER WITH THIS MACHINE.

CHARGER SPECIFICATIONS

OUTPUT VOLTAGE OF 24 VOLTS.

OUTPUT CURRENT OF 25 AMPS MAX. (2 BATTERY SYSTEM)

OUTPUT CURRENT OF 40 AMPS MAX. (4 BATTERY SYSTEM)

INPUT VOLTAGE OF 110 VOLTS.

AUTOMATIC SHUT OFF CIRCUIT.

MADE FOR DEEP CYCLE BATTERIES.

DANGER: ALWAYS CHARGE BATTERIES IN A WELL VENTILATED AREA. BATTERIES EMIT HYDROGEN GAS. EXPLOSION OR FIRE CAN RESULT. KEEP SPARKS AND FLAME AWAY. SHIELD EYES WHEN SERVICING BATTERIES AND AVOID CONTACT WITH BATTERY ACID. LEAVE BATTERY HOOD OPEN!

1. TRANSPORT MACHINE TO A WELL VENTILATED AREA FOR CHARGING.
2. TURN THE MACHINE OFF.
3. HINGE OPEN HOOD TO EXPOSE THE BATTERIES. (SEE FIG. 24)
(CAUTION ALWAYS WEAR EYE PROTECTION WHEN BATTERIES ARE EXPOSED)



4. CHECK THE WATER LEVEL IN EACH BATTERY. DO NOT CHARGE THE MACHINE UNLESS THE WATER IS SLIGHTLY HIGHER THAN THE PLATES. IF NEEDED, ADD ENOUGH *DISTILLED* WATER TO JUST SLIGHTLY COVER THE PLATES. DO NOT OVER FILL. BATTERIES CAN OVERFLOW DURING CHARGING. REPLACE CAPS BEFORE CHARGING.
5. PLUG THE CHARGER POWER CORD INTO A GROUNDED WALL OUTLET.
6. THE GREEN LIGHT ON THE CHARGER WILL COME ON WHEN THE CHARGER IS WORKING. (SEE FIGURE 25)



7. THE CHARGER WILL AUTOMATICALLY BEGIN CHARGING, AND AUTOMATICALLY SHUT OFF WHEN FULLY CHARGED. THE GREEN LIGHT WILL GO OUT WHEN THE CHARGER SHUTS OFF.
8. AFTER THE CHARGER HAS TURNED OFF, DISCONNECT THE CHARGER FROM THE WALL OUTLET.
9. RECHECK THE CELL LEVEL AFTER CHARGING. IF NEEDED, ADD *DISTILLED* WATER UP TO THE CORRECT LEVEL. BE CERTAIN TO REPLACE THE CAPS SECURELY AND TO WIPE OFF THE TOP OF THE BATTERIES WITH A CLEAN CLOTH.

MAINTENANCE

DAILY MAINTENANCE

1. CLEAN THE FILTER WITH THE SHAKER SWITCH FOR 20 SECONDS.
2. REMOVE AND CLEAN DEBRIS FROM THE HOPPER AND RINCE OUT IF NECESSARY.
3. CHARGE THE MACHINE WITH THE HOOD OPEN TO ALLOW THE BATTERIES TO VENTILATE PROPERLY.
4. REPORT ANY DAMAGE TO A SUPERVISOR.
5. WIPE DOWN MACHINE IF NEEDED. USE A NONABRASIVE, NON SOLVENT CLEANER, OR A CLEAN DAMP CLOTH.
6. RECHARGE THE BATTERIES IF NEEDED.

WEEKLY MAINTENANCE

1. CHECK BATTERY WATER LEVEL.
2. CHECK CONDITION OF ALL THREE TIRES.
3. CHECK CONDITION OF DUST CURTAINS ON SHROUD.
4. CHECK CONDITION OF DUST CURTAIN ON WALLS.
5. CHECK TO SEE IF VACCUM EXHAUST IS CLEAR.

MONTHLY MAINTENANCE

1. LUBRICATE FRONT CASTERS WITH A WATERPROOF GREASE.
2. CHECK MACHINE FOR VACUUM LEAKS AND LOOSE NUTS AND BOLTS

YEARLY MAINTENANCE

1. CALL YOUR LOCAL DEALER FOR YEARLY MAINTENANCE.

STORING MACHINE

1. BE SURE TO CLEAN FILTER
2. EMPTY HOPPER INTO TRASH RECEPTACLE.
3. RAISE MAIN BROOM AND SIDE BROOMS.

NOTE: IF YOU LEAVE BROOMS DOWN ON FLOOR FOR EXTENDED PERIOD WHILE MACHINE IS NOT IN USE THEY WILL DEVELOPE FLAT SPOTS. THIS WILL CAUSE " BROOM BOUNCE" AND BAD SWEEPING.

PREVENTATIVE MAINTENANCE RECORDS

USE THIS FORM TO MAKE COPIES FOR YOUR INTERNAL RECORDS

PREVENTATIVE MAINTENANCE

CHECKED

NOTE

CHECK BROOM FOR DEBRIS
SHAKE FILTER WITH SWITCH
EMPTY HOPPER
CHECK BROOM FIBER LENGTH
CHECK SIDE BROOM ADJUSTMENT
CHECK FLOOR SEALS
CHECK BELTS FOR WEAR
CHECK BATTERY WATER LEVEL
CHECK BATTERY VOLTAGE
CHECK CHARGER CONDITION
CHECK MACHINE PERFORMANCE
SWEEPING POWER
VACUUM POWER
CONTROLS
GAUGES AND CONTROLS
CHECK WHEEL TRACKTION
GREASE FRONT WHEEL
SWEEPS AROUND TURNS

OTHER: _____

OTHER: _____

PAST HOUR METER READING:

CURRENT HOUR METER READING:

AVERAGE WEEKLY USAGE:

TECHNICIAN PRINT: _____

TECHNICIAN SIGNATURE: _____

DATE: _____

MANAGER SIGNATURE: _____

DATE: _____

TROUBLE SHOOTING

| <u>PROBLEM</u> | <u>CAUSE</u> | <u>SOLUTION</u> |
|-----------------------------------|---|---|
| NO POWER, NOTHING OPERATES | FAULTY KEY SWITCH BATTERIES NEED CHARGING FAULTY BATTERY LOOSE BATTERY CABLE MAIN CIRCUIT BREAKER TRIPPED | CONTACT LOCAL SERVICING DEALER SEE CHARGING BATTERIES REPLACE BATTERY TIGHTEN LOOSE CABLE WAIT 5 MINUTES FOR AUTO RESET DETERMINE CAUSE AND CORRECT |
| MAIN BROOM DOES NOT OPERATE | MAIN BROOM IS NOT DOWN FOOT PEDAL IS NOT DEPRESSED MAIN BROOM CIRCUIT BREAKER TRIPPED CARBON BRUSHES WORN FAULTY MOTOR OR WIRES | PUT BRUSH DECK DOWN ENGAGE FOOT PEDAL WAIT 5 MINUTS FOR AUTO RESET DETERMINE CAUSE AND CORRECT CONTACT LOCAL SERVICING DEALER CONTACT LOCAL SERVICING DEALER |
| DRIVE MOTOR DOES NOT OPERATE | RECHARGE SWITCH MISADJUSTED FAULTY SPEED CONTROLLER OR WIRES FAULTY DRIVE MOTOR FAULTY WIRING CARBON BRUSHES WORN | CONTACT LOCAL SERVICING DEALER CONTACT LOCAL SERVICING DEALER CONTACT LOCAL SERVICING DEALER CONTACT LOCAL SERVICING DEALER CONTACT LOCAL SERVICING DEALER |
| DUST CONTROL FAN DOES NOT OPERATE | FAULTY VACUUM SWITCH VACUUM CIRCUIT BREAKER TRIPPED FAULTY VACUUM MOTOR CARBON BRUSHES WORN | TRY OPERATING "WHITE " TOGGLE WAIT 5 MINUTES FOR AUTO RESET DETERMINE CAUSE AND CORRECT CONTACT LOCAL SERVICING DEALER CONTACT LOCAL SERVICING DEALER |
| DRIVE MOTOR RUNS INCORRECTLY | FAULTY SPEED CONTROLLER OR WIRES FAULTY POTENTIOMETER LOOSE WIRES | CONTACT LOCAL SERVICING DEALER CONTACT LOCAL SERVICING DEALER CONTACT LOCAL SERVICING DEALER |

TROUBLE SHOOTING

| <u>PROBLEM</u> | <u>CAUSE</u> | <u>SOLUTION</u> |
|-----------------------|--|---|
| POOR DUST CONTROL | FILTER CLOGGED HOPPER NOT CLOSED TIGHTLY HOPPER GASKET FAULTY HOPPER FULL FAULTY VACCUM FAN BATTERY CHARGE IS LOW WET SEEP BY-PASS DOOR IS OPEN | TURN ON FILTER BEATER ADJUST SCREW ON HOPPER CLAMP TO TIGHTEN SEAL CONTACT LOCAL SERVICING DEALER REMOVE DEBRIS CONTACT LOCAL SERVICING DEALER CHARGE BATTERIES OVER NIGHT CLOSE BY-PASS DOOR. |
| POOR SWEEPING QUALITY | MAIN BROOM WORN OUT DEBRIS STUCK TO MAIN BROOM BROKEN MAIN BROOM BELT BROKEN MOTOR TO JACKSHAFT BELT MAIN BROOM BELT FELL OFF MOTOR TO JACK SHAFT BELT FELL OFF BATTERY CHARGE IS LOW BROOM HAS FLAT SPOT AND HAS "BROOM BOUNCE" | REPLACE MAIN BROOM REMOVE DEBRIS REPLACE BELT REPLACE BELT PUT BELT BACK ON PUT BELT BACK ON CHARGE BATTERIES OVER NIGHT REPLACE BROOM. |
| MAIN BROOM NOISY | DEBRIS STUCK IN MAIN BROOM MAIN BROOM OUT OF ROUND DEBRI STUCK IN MAIN BROOM BELT | REMOVE DEBRIS REPLACE MAIN BROOM REMOVE DEBRIS |
| REAR TIRES NOISY | BEARINGS DRY FAULTY HUBS | GREASE BEARINGS CONTACT LOCAL SERVICING DEALER |
| POOR TRACTION | EXCESSIVE MAIN BROOM PRESSURE WORN DRIVE TIRES | REDUCE PRESSURE WITH SWITCH CONTACT LOCAL SERVICING DEALER |
| SHORT RUN TIME | BATTERIES RUN DOWN BATTERIES STILL DOWN BATTERIES LOW ON WATER BATTERIES OVER CYCLED | CHARGE BATTERIES TWICE CONTACT LOCAL SERVICING DEALER FILL WITH DISTILLED WATER TO 3/4" ABOVE THE LEAD PLATES CONTACT LOCAL SERVICING DEALER |