
READ AND FOLLOW ALL
INSTRUCTIONS, WARNINGS &
CAUTIONS BEFORE USING THIS
BATTERY SWEEPER

SAFETY,
OPERATION &
MAINTENANCE
MANUAL



DEBRISMASTER™
28" & 36"
BATTERY & GAS
OPERATED
SWEEPERS

This unit is intended for commercial use.

The purpose of this manual is to inform the operator of the basic operating and safety procedures that must be followed when operating, adjusting and maintaining the sweeper. The machine has been developed and manufactured to ensure an excellent performance and the utmost comfort and ease of operation in a variety of working conditions.

This sweeper will afford you many years of trouble-free operating satisfaction, provided it is given proper care. All parts have passed rigid quality control standards prior to being assembled to produce the finished product. Prior to packaging, the sweeper was again inspected for assurance of flawless assembly.

Your sweeper is protectively packed to prevent damage in shipment. We recommend that upon delivery, unpack the

sweeper and inspect it for any possible damage. Only a visual examination will reveal damage that may have occurred.

If damage is discovered, immediately notify the transportation company that delivered your sweeper. As a shipper, we are unable to report claims for concealed damage. You must originate any claims within 5 days.

This manual is for your protection and information. **PLEASE READ CAREFULLY** since failure to follow precautions could result in discomfort or injury.

Read this manual completely before operating this sweeper. It is important to follow all instructions in the manual to prevent the possibility of injury or damage to the user and/or sweeper.

READ ALL
INSTRUCTIONS
BEFORE
OPERATING
THIS SWEEPER

IMPORTANT SAFETY INSTRUCTIONS



WARNING:

To Reduce the Risk of Fire, Electric Shock or Injury:
Electric shock could occur if used on wet surfaces.
DO NOT expose to rain - Store Indoors

When using this sweeper, basic precautions should always be followed, including the following:

- 1) This is **NOT** a toy. Close attention is necessary when used around or near children.
- 2) Use only as described in this safety manual. Use only the manufacturer's recommended attachments and accessories.
- 3) **DO NOT** use this sweeper if it is not working as it should, because it has been dropped, damaged, left outdoors or dropped into water, contact an authorized service center or factory.
- 4) Keep hair, loose clothing, fingers, and all parts of body away from openings and moving parts
- 5) **DO NOT** use this sweeper to pick-up cables, straps, wire or similar materials or operate near cables, wire or similar materials.
- 6) **DO NOT** pick up anything that is smoking or burning such as cigarettes, matches, or hot ashes.
- 7) **DO NOT** use this sweeper to pick up liquids.
- 8) Turn **OFF** all the controls when not in use, left unattended or before make repairs on the sweeper.
- 9) **DO NOT** use where anesthetics and oxygen are used.
- 11) Before servicing or cleaning this sweeper, always turn the unit **OFF**.
- 10) Replace damaged or worn parts immediately with genuine original equipment parts to maintain safety and to protect your limited warranty.

USE OF THIS SWEEPER

The DebrisMaster™ is designed with brush and vacuum system. It is for cleaning dry surfaces **EXCLUSIVELY**. The manufacturer will accept no responsibility for damage caused by improper use of the sweeper.

Dropping, unreasonable bumping across thresholds and other misuses may result in damage to the unit which will not be covered by the warranty.

Should damage to this sweeper occur, it should **NOT** be used until it is repaired by the manufacturer or an authorized service center.

The sweeper should be operated by qualified and authorized personnel only.

If you are working in a particularly dusty environment (for instance; sawmills; cement factories; marble processing factories), it is recommended you wear a mask, protective goggles, and gloves.

- ◆ **NEVER:**
Use the sweeper to transport people.
- ◆ **NEVER:**
Touch the moving parts of the machine.
- ◆ **NEVER:**
Remove the sweeper's guards when it is running.

UNPACKING INSTRUCTIONS

This sweeper is shipped on one or two pallets. If you have a battery unit the batteries and charger are on the second pallet. The side brush, handle and upper cover are not attached. Before using the sweeper they must be installed.

Unpack this sweeper with the utmost care to avoid any damage that may have occurred. Once it has been unpacked, inspect for any damaged. **DO NOT** use this sweeper if damage is discovered, contact your distributor immediately.

Contents of First Pallet:

- ◆ DebrisMaster™ Sweeper
- ◆ Side Brush
- ◆ Bag with Hardware (Ignition Key; Bolts; Nuts; Screws; etc)
- ◆ Manual and Part List

Contents of Second Pallet:

- ◆ Battery Charger
- ◆ Battery

ATTENTION:

ALWAYS KEEP THE SWEEPER OUT OF CHILDREN'S REACH.

28" Sweeper

1) Untighten and remove the nuts and bolts on both sides of the handle. Carefully install the handle in place on the brackets.

2) Line up the holes in the handle with the holes in the bracket

3) Replace 2 bolts and nuts on each side and tighten. The extra bolts and nut are packed in the bag with hardware.

4) Attach handle cover to the handle using the hardware provide in the plastic bag if it was not shipped attached.

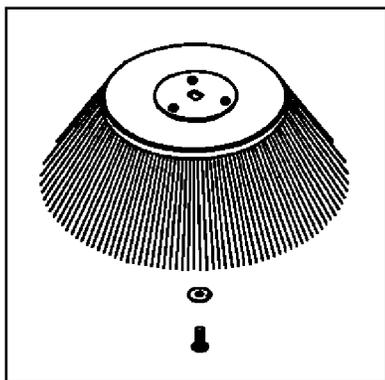
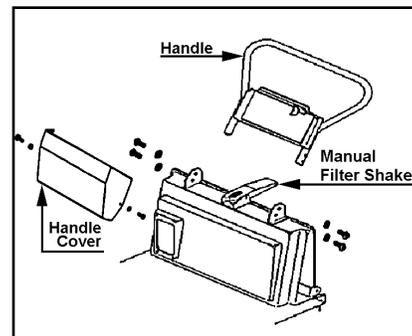
36" Sweeper

1) Lift up on the handle carefully, set in place on the brackets.

2) Tighten the handle bolt and nut on each side of the handle. There are two bolts and nut on each side of the handle the extra bolts and nuts are packed in the bag with hardware.

3) Attach handle cover to the handle if it was not shipped attached.

HANDLE INSTALLATION



1) Make sure the brush lift lever is in the **OFF** position.

2) Remove the screw from the side brush drive shaft.

3) Fit the brush on the shaft.

4) Attach screw and washer. Tighten.

SIDE BRUSH INSTALLATION

1) Check to level of oil in the engine.

2) Fill the fuel tank with unleaded gas and check the oil.

3) Make sure the switch located on the engine is turned **OFF**, otherwise you will not be able to operate the stop key on the control panel.

4) Make sure the side brush is **OFF**.

5) Switch the accelerator lever to start and open up the fuel tap.

6) If the engine is cold, use the choke level and then operate the start handle.

7) Once the engine starts running, shut **OFF** the choke lever.

8) Use the accelerator to reach the required speed.

GAS UNITS PREPARING & STARING THE ENGINE FOR OPERATION



DANGER:

Gas is highly inflammable. Keep fuel in containers designed for this purpose. Before filling the sweeper with gas move the sweeper to well ventilated area and turn OFF the engine.
DO NOT SMOKE.

If a fuel spill occurs DO NOT attempt to start the engine, wait for the vapor to evaporate.

BATTERY UNITS

BATTERY INSTALLATION & RECHARGING

WARNING:



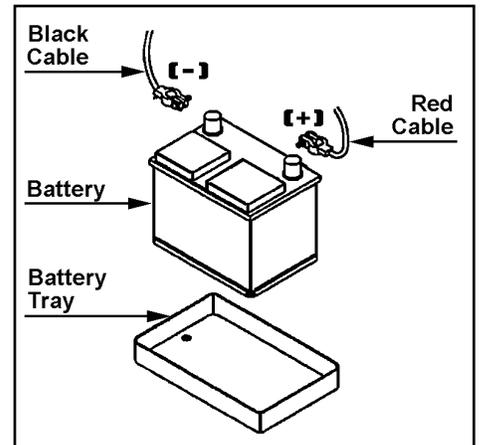
When handling or working near batteries, **NEVER** place anything on top of batteries. This could cause sparking and create an explosion hazard.

When installing or servicing batteries always wear protective clothing, plus eye and face protection. Batteries contain acid that can cause severe burns on contact.

Note: The battery shipped with your sweeper is already charged.

Installation

- 1) Be sure the ignition key is in the **OFF** position.
- 2) Carefully set battery into the battery tray.
- 3) Attach the connector with the red wire to the (+) terminal on the battery and connector with the black wire on the (-) terminal.
- 4) Install battery cover. (See Below)



Recharging

- 1) Be sure the ignition key is in the **OFF** position.
- 2) Plug the charger into the charger plug located on the right hand side of the control panel.
- 3) Plug charger into 110V outlet.
- 4) The charge will automatically turn **OFF** when the battery is fully charged.

Safety Precautions

- ◆ The battery **MUST** be recharged when the **RED LIGHT** comes on.
- ◆ **DO NOT** store the sweeper when the battery is discharged.
- ◆ Check battery connections to make sure they are tight and there is **NO** corrosion.

ATTENTION:

When operating this sweeper, if the battery needs to be recharged, the sweeper will stop automatically.

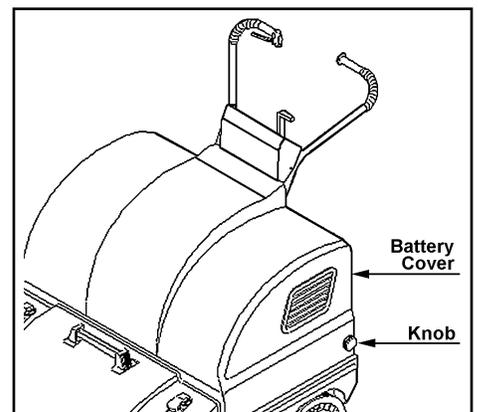
COVER INSTALLATION

1. Set the battery cover over the battery compartment making sure the front of the cover is seated in front groove of the battery compartment.

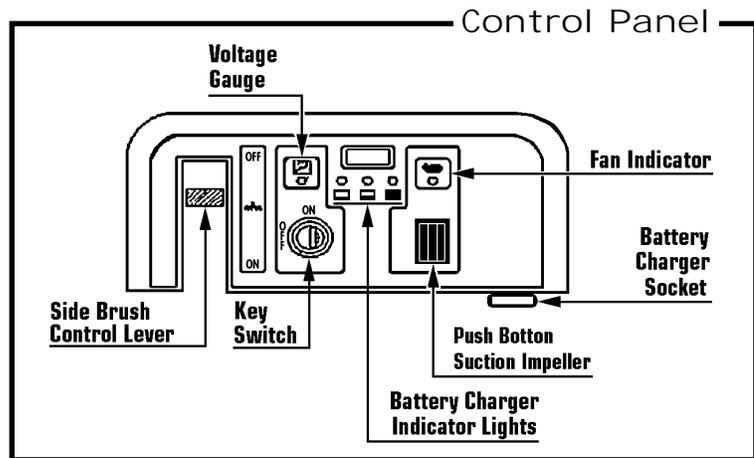
Note: On the 36" sweeper the cover fits over the air inlet knob.

2. Lineup each knob with the holes in the cover and chassis. Tighten knobs.

NOTE: There is a adjustable nut on back of the chassis that can be if there is a problem tightening the knob.



SWEEPER CONTROLS



Side Brush Control Lever:

Push lever down to turn **ON** the side brush. Push lever up to turn **OFF** the side brush.

Key Switch:

Starts and turns off all the sweeper's functions including the Main Brush.

Fan Indicator Light

Indicates that the fan is in use.

Push Botton Suction Impeller:

Activates the suction Impeller.

Traction Lever:

Squeeze this lever to start the sweeper moving.

Airflow Adjustment Knob:

Opens and closes the air valve when regulating the airflow. (36" Sweeper Only)

Voltage Indicator Light

Indicates the sweeper's power levels.

Battery Sweepers Only

Battery Charger Socket:

Plug for battery charger.

Battery Charge Indicator Lights:

Green: Battery is charged.

Yellow: Battery is running down, recharge as soon as possible.

Red: **DO NOT** operate, batteries must be recharged.

Follow these instructions to obtain the best cleaning results from the sweeper and keep damage to a minimum.

1) When picking up light but bulky debris (sheets of paper, leaves, etc.) raise the front part of the sweeper by pressing down the handle so that the sweeper can tackle the rubbish.

2) **DO NOT** use the sweeper to pickup wires, ropes, and straps or to soak up any liquids.

3) Operate the Filter Shaker at the end of your work (see pg 6).

4) Check to make sure the Main Brush is correctly adjusted (see pg 7).

To Start Operating The Sweeper:

1) Check to make sure that the side brush is **OFF**.

2) Turn the Key Switch to **ON**

3) Battery units have a 10 seconds delay while the battery voltage level is checked. If the voltage is at the correct charge level the Main Brush will turn **ON**.

4) Push the Side Brush Control Lever down to lower and turn **ON** the side brush.

5) Squeeze the Traction Lever (on right) to move the sweeper forward and start cleaning.

6) Squeeze Debris Flap Lever (on left) for removal of large debris.

OPERATING PROCEDURES

CAUTION:



DO NOT leave sweeper unattended when it is running or on sloping surfaces, there is **NO** brake to keep it from rolling. Before leaving the sweeper turn it **OFF** and remove the key.

CLEANING OUT FRONT & REAR WASTE BINS

CAUTION:



Turn OFF all controls before cleaning out the waste bins.
Waste must be disposed of in strict accordance to the law.

Removal of Front Bin

- 1) Lift and turn the waste bin locks.
- 2) Grasp both handles and grip located on the front part of the waste bin.
- 3) Pull upward to remove the waste bin.
- 4) Empty the waste bin.

Reinstall Front Bin

- 1) Place the waste bin back in the sweeper from the top.
- 2) Lock in place by turning and lowering the waste bin locks.

Removal of Rear Bin

- 1) Lift and turn the waste bin locks.
- 2) Grasp the handle and pull the waste bin out of the sweeper.
- 3) Empty the waste bin.

Reinstall Rear Bin

- 1) Place the waste bin back into the sweeper.
- 2) Lock in place by turning and lowering the waste bin lock.

CLEANING & REPLACING FILTER

The filter is one of the sweepers main components and is essential to its operation. It is important to follow filter maintenance procedures to obtain the best cleaning results. If you notice that dust forms when the sweeper is operating, check the filter.

Cleaning Filter Using Filter Shaker:

- 1) Using the manual lever, push down on it as the filter vibrates, dirt and dust will fall into to waste bin.
- 2) Repeat this operation several times.

Note: If dust still forms when the sweeper is operating, remove and clean the filter.

Cleaning in Heavy Dust Environments:

When using the sweeper particularly in a dusty environment (cement factories, sawmills, marble processing factories), use the filter shaker more frequently.

Cleaning the Filter:

It is recommended to periodically remove the filter and clean it out with a blast of air or a vacuum cleaner.

To Remove The Filter:

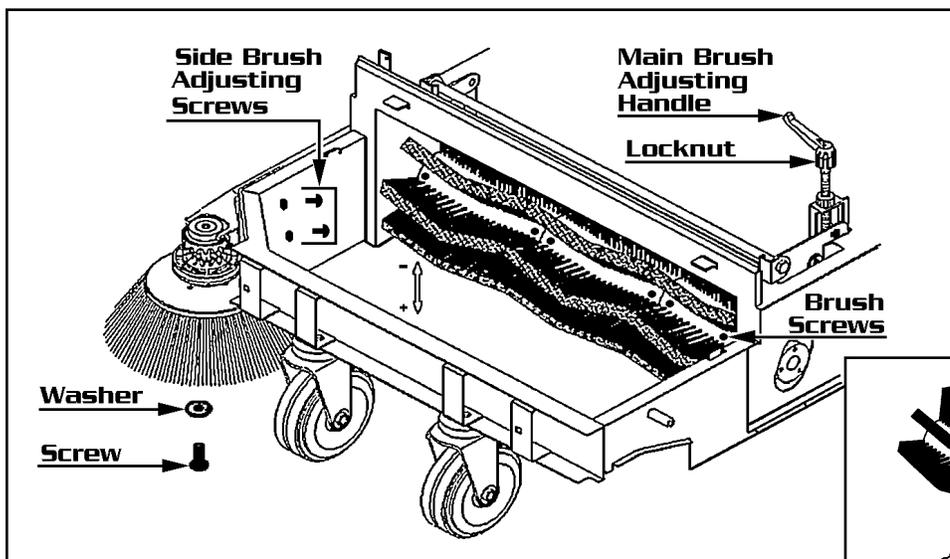
- 1) Remove the rear waste bin.
- 2) Turn the two levers holding filter in place and lift out the filter.
- 3) Clean the filter with a blast of air or vacuum cleaner.
- 4) Reinstall the filter.

NOTE: The filter features an arrow that shows the direction in which it should be fitted.

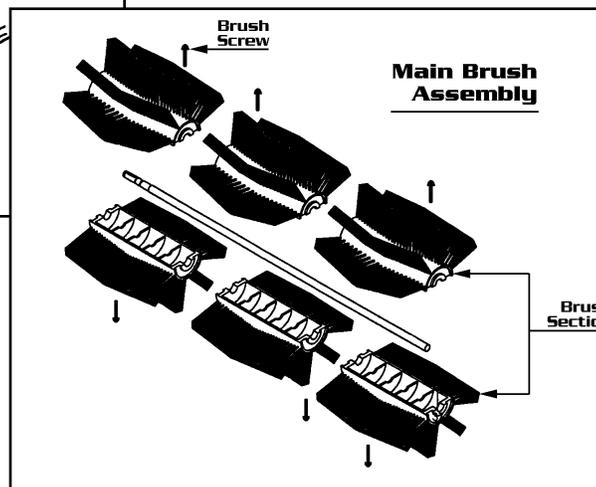
Replacing the Filter:

Every 200 hours of work, the filter must be replaced.

- 1) Remove the filter (See instructions under Cleaning the Filter).
- 2) Install a **NEW** filter and make sure the gasket and filter are dust tight.



ADJUSTING & REPLACING MAIN & SIDE BRUSHES



Adjusting Main Brush

- 1) Remove the top cover.
 - 2) Untighten locknut, and turn adjusting handle clockwise to increase pressure and counterclockwise to decrease pressure.
 - 3) The adjusting handle works like a ratchet.
- Note:** When the lever is pulled up it can be rotated without changing the brush adjustment.
- 4) Tighten locknut and replace cover.

Replacing Main Brush

The Main Brush is made in 3 sections, each section is divided in half.

To Remove Main Brush:

- 1) Remove the front waste bin.
- 2) Unscrew and remove the 6 screws holding the main brush sections in place.
- 3) Remove disassembled brush.

To Install Main Brush:

- 1) Take a brush section and place it around the shaft, securing the section with the brush screws.
- 2) Repeat this operation for each brush section.

Note: Make sure the brush spins and directs dirt and debris to the center of the sweeper.

- 3) Replace front waste bin.

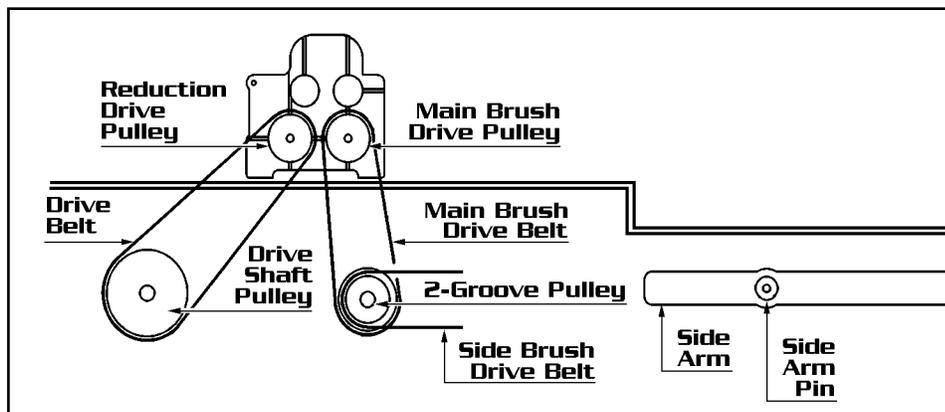
Adjusting Side Brush

- 1) Loosen the adjusting screws.
- 2) Use the slots to position the brush at the required height.
- 3) Tighten the two adjusting screws.

Replacing Side Brush

- 1) Lift the front part of the sweeper.
- 2) Untighten the brush screw and removing the brush.
- 3) Replace the brush and secure with the screw and washer.

REPLACING & ADJUSTING BELTS



Replacing the Belts:

- 1) Remove the top cover and front waste bin.
- 2) Remove the right wheel.
- 3) Loosen the screws that secure the bumper and right side guard in place and remove side guard.

Now you can replace the damaged belt.

Replacing Center Belt

- 1) Remove Side Brush Drive Belt from the 2-Groove Pulley.
- 3) Remove Main Brush Drive Belt from the groove of the Main Brush Drive Pulley and 2-Groove Pulley.
- 4) Replace with a **NEW** Main Brush Drive Belt.
- 5) Position Side Brush Belt on the 2-Groove Pulley.

Replacing Side Belt

- 1) Remove Side Brush Drive Belt from the 2-Groove Pulley.
- 2) Loosen Side Arm Pin and let the hooks of Side Arm come out of the idle toothed ring.
- 3) Remove Side Brush Drive Belt from the Side Arm.
- 4) Replace the Side Brush Belt.
- 5) Hook Side Arm to the idle toothed ring.
- 6) Tighten Side Arm Pin.
- 7) Place Side Brush Belt on 2-Groove Pulley.

Replacing Drive Belt

- 1) Loosen the Main Brush Drive Pulley screw and take it out of the reduction unit shaft, paying attention not to lose the key.
- 2) Unscrew Reduction Drive Pulley screw and take it out of the reduction unit shaft, paying attention not to lose the key.
- 3) Remove Drive Belt.
- 4) Place the **NEW** Drive Belt on the Drive Shaft Pulley.
- 5) Install Reduction Drive Pulley on the reduction unit along with the belt.

REPLACING MOTOR FAN

- 1) Remove the cover.
- 2) Disconnect the battery cables and remove the battery. Carefully set aside.
- 3) Disconnect the power supply cords of the motor from the plug.
- 4) Remove the stop for the cable holder from the motor.
- 5) Untighten the four motor screws.
- 6) Replace the motor by carrying out the above operations in reverse order.

Note:

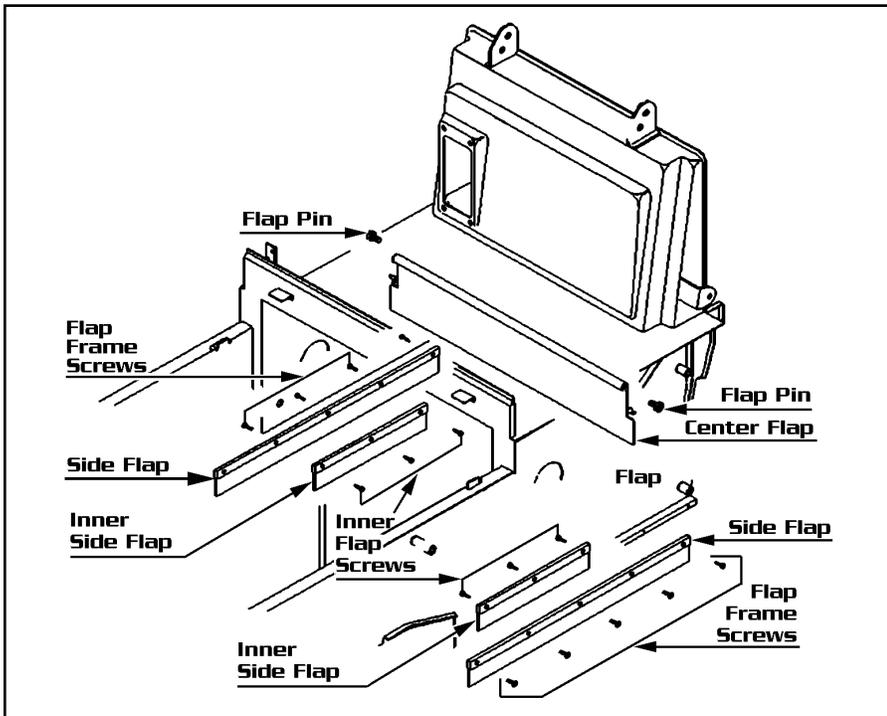
Make sure the motor is mounted level with the fan.

CAUTION



When connecting the motor, respect the polarity.

REPLACING SIDE AND CENTER FLAPS



Replace Outer Side Flaps

- 1) Remove the rear wheels and the relevant side guards.
- 2) Loosen the Flap Frame Screws that secure the flaps to frame.
- 3) Install a **NEW** Outer Side Flap in the same direction that it was removed.
- 4) Tighten screws and replace rear wheel.

Replace Inner Side Flaps

- 1) Lift the front part of the sweeper and loosen Inner Flap Screws that secure the flaps to the frame.
- 2) Install a **NEW** Inner Side Flap in the same direction that it was removed.
- 4) Tighten screws and replace rear wheel.

Replace Center Flap

- 1) Remove rear wheels and the relevant side guard.
- 2) Remove the rear door.
- 3) Loosen the two Flap Pins located on the sides of the frame.
- 4) Grasp the Center Flap and pull it outward.
- 5) Fit a **NEW** flap in the same direction it was removed.
- 6) Insert the points into holes and tighten Flap Pins.

REPLACING TRACTION AND SIDE BRUSH CABLES

Traction Cable

To Remove Traction Cable:

- 1) Remove the upper cover.
- 2) Loosen the security dowel located on the cable fixing pin.
- 3) Pull the cable out of the fixing pin and remove the adjustment screw mounted on the handle.
- 4) Press the handle and pull the cable out of its sheath.

To Install NEW Traction Cable:

- 1) Fit one end of the **NEW** cable into the handle adjustment screw (i.e. the end without the blocking ball).
- 2) Insert the cable into its sheath.
- 3) Hook the blocking ball to the handle.
- 4) Slot the cable through the turned adjustment screw, secured to the frame and then through the fixing pin.
- 5) Tighten the security dowel. Adjust the cable with the two adjustment screws.

Side Brush Lifting Cable

To Remove Side Brush Cable:

- 1) Remove the upper cover and the front waste bin.
- 2) Remove the front bumper, right wheel and right side guard.
- 3) Loosen the cable clamp.
- 4) Loosen security dowel on the fixing pin.
- 5) Remove the handle from the support and open it up.
- 6) Pull the cable out of the two sheaths.

To Install NEW Side Brush Cable:

- 1) Put the cable inside the handle.
- 2) Close handle and fix it to the support.
- 3) Insert the cable into its sheath.
- 4) Secure one end of the cable in place with the clamp and the other end with the fixing pin.
- 5) Adjust cable with the two adjustment screws.

ROUTINE MAINTENANCE

CAUTION:



**Always turn OFF the sweeper before performing any maintenance.
All maintenance must be carried out by competent
personnel or an authorized service center.**

Maintenance Check List	On Delivery	Every 10 Hrs	Every 50 Hrs	Every 100 Hrs
Check Battery Liquid	X	X		
Check Belts				X
Grease in the Reduction Unit		X		X
Tighten Nuts and Screws			X	
Brushes for Wear			X	
Gaskets for Leaks and Wear		X		
Check that parts are in working order	X			



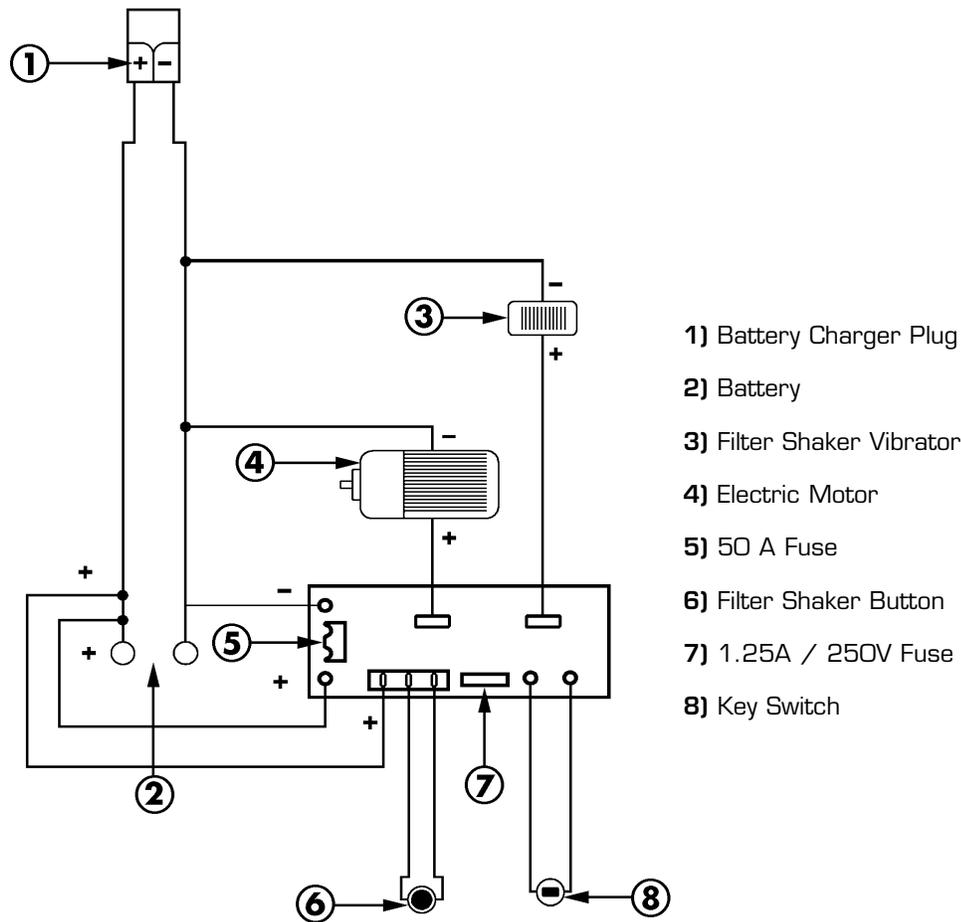
WARNING:

**When washing off the scrubber DO NOT use a Jet of Water.
The cover and bin MUST be removed before cleaning.**

SWEEPER SPECIFICATION

Description	28" DM-700B	36" DM-900B
Side Brush Width	33 ¹ / ₂ "	38 ¹ / ₂ "
Side Brush Length	47 ¹ / ₄ "	47 ¹ / ₄ "
Handle Height	37"	37"
Main Brush Cleaning Width	20 ¹ / ₂ "	28 ¹ / ₄ "
Side and Center Brush Cleaning Width	29 ¹ / ₂ "	35 ¹ / ₂ "
Bin Capacity	1.3 Cu Ft	1.7 Cu Ft
Filter Surface	13.45 ² Ft	21.52 ² Ft
Noise Level	72dB	72dB
Main Voltage	12V	12V
Installed Power	400W/40A	400W/40A
Battery	12V/115A	12V/115A

WIRING DIAGRAM



- 1) Battery Charger Plug
- 2) Battery
- 3) Filter Shaker Vibrator
- 4) Electric Motor
- 5) 50 A Fuse
- 6) Filter Shaker Button
- 7) 1.25A / 250V Fuse
- 8) Key Switch

TROUBLE SHOOTING GUIDE



CAUTION:

Always turn the sweeper OFF before servicing.

PROBLEM: Main brush not working.

CAUSE:

- 1) Belt is broken.
- 2) Motor burnt out.
- 3) Wire is detached.
- 4) Circuit board damaged.

SOLUTION:

- 1) Replace belt.
- 2) Replace motor.
- 3) Check and reattach.
- 4) Check and replace.

PROBLEM: Side brush not working.

CAUSE:

- 1) Belt is broken.

SOLUTION:

- 1) Replace belt.

PROBLEM: Battery will not stay charged.

CAUSE:

- 1) Liquid is insufficient.
- 2) Battery terminal is loose.

SOLUTION:

- 1) Add liquid.
- 2) Tighten terminal.

PROBLEM: Dust blowing from fan.

CAUSE:

- 1) Filter is damaged.
- 2) Filter not correctly installed.
- 3) Gasket is worn.

SOLUTION:

- 1) Replace filter.
- 2) Install correctly.
- 3) Replace gasket.

PROBLEM: Brushes wear prematurely.

- 1) Brushes are too low.

- 1) Adjust brushes.

PROBLEM: Dust forms during operation.

CAUSE:

- 1) Flaps are worn.
- 2) Filter is clogged.

SOLUTION:

- 1) Replace flaps.
- 2) Clean filter.

PROBLEM: Motor does not work.

CAUSE:

- 1) Motor is damaged or burnt out.
- 2) Wire is disconnected.
- 3) Impeller is clogged or blocked.

SOLUTION:

- 1) Replace motor.
- 2) Check and reconnect wire.
- 3) Clean impeller.

PROBLEM: Sweeper will not start.

CAUSE:

- 1) Battery terminals are disconnected.
- 2) Battery needs to be recharged.
- 3) Fuse is blown.
- 4) Gas tank empty.

SOLUTION:

- 1) Check and reconnect terminals.
- 2) Charge battery.
- 3) Replace fuse.
- 3) Refill tank.



Mastercraft

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(845) 565-9392

URL:

www.mastercraftusa.com

E-mail:

mail@mastercraftusa.com



WARNING:

Repairs should only be performed by an authorized service center.