

# Max Ride Sweeper Vac Operations Manual



Minuteman International, Inc.  
A Member of the Hako Group

#988770UM Rev. A 10/21

## Preface

This manual is furnished with each new **MINUTEMAN<sup>®</sup> Max Ride Sweeper Vac**. These are the original instructions for the Max Ride Sweeper Vac. This provides the necessary operating and preventive maintenance instructions. Operators must read and understand this manual before operating or servicing this machine.

This machine was designed to give you excellent performance and efficiency. For best results and minimal cost, please follow the general guidelines below:

- Operate the machine with reasonable care.
- Follow the manufacturer's suggested maintenance instructions as provided in this booklet.
- Use original Minuteman<sup>®</sup> supplied parts.

## Technical Specifications

### Model MR20SW Max Ride Sweeper Vac

Scrubber Specifications	
Sweep Path	20"
Sweeping Brush Speed	700 RPM
Sweeper Brush Diameter	6"
Vacuum Brush Speed	1500 RPM
Vacuum Brush Diameter	4"
Side Broom Diameter	11"
Vacuum Motor	24V 2 Stage
Vacuum Airflow	67 CFM
Vacuum Waterlift	51" H2O
Sound Pressure	68 dba
Vacuum Bag	H.E.P.A. Standard
Vacuum Bag Capacity	.58ft <sup>3</sup> Max








Scrubber Specifications (cont'd)	
Hopper Capacity	15.83 ft <sup>3</sup>
Max Productivity	27,200 sq ft/hr
Average Productivity	22,015 sq ft/hr
Turning Radius	50.5"
Maximum Ramp Climbing	6%
Machine Voltage	24 VDC
Power Source	(2) 12 volt 140AH Batteries (Optional) 235AH AGM
Battery Charger	On Board
Maximum Run Time	2.5-4.0 hours
Weight	342 lbs
Weight with Batteries	691 lbs
Dimensions	47.5" L X 26.25" W X 45" H

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## Safety Instructions

This machine is designed solely for vacuuming in a commercial, indoor environment. Minuteman® does not recommend using this machine in any other capacity. The following information below may cause a potential hazard to the operator and equipment. Read this manual carefully, and be aware when these conditions can exist. Take necessary steps to locate all safety devices on the machine and train the personnel operating the machine. Report any machine damage or faulty operation immediately. Do not use machine if it is not in proper operating condition.

	<b>WARNING</b>	Operators must be adequately instructed on the use of the machine
	<b>WARNING</b>	Operators must read, and understand this manual before operating or maintaining this machine
	<b>WARNING</b>	Do not operate this machine in flammable or explosive areas
	<b>WARNING</b>	This machine is for use in dry environments only
	<b>CAUTION</b>	This machine is for indoor use only
	<b>CAUTION</b>	This machine shall be stored indoors
	<b>WARNING</b>	Do not allow the supply cord to come into contact with the rotating brushes

## **FOR SAFETY DURING OPERATION**

Keep hands and feet clear of moving parts while machine is in operation. Make sure all safety devices are in place and operate properly. All covers, doors and latches must be closed and fastened before use. During operation, attention should be paid to other persons in the work area and especially if small children are present. The Max Ride is not to be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction. Children must be supervised not to play with the machine. Electric motors and components can cause an explosion when operated near explosive materials or vapor. Do not operate this machine near flammable materials such as solvents, thinners, fuels, grain dust, etc. Store or park this machine on a level surface only. To prevent unauthorized use, machine should be stored or parked with the key removed. This machine is designed for level operation only. **Do not operate on ramps or inclines greater than 6%.**

This machine is not suitable for picking up hazardous dusts. Use caution when moving this machine into areas that are below freezing temperatures. Any water in the tanks or hoses can cause damage to the machine.

## **FOR SAFETY WHEN SERVICING OR MAINTAINING MACHINE**

Stop on level surface. Disconnect the power to the machine by removing the back cover, and unplugging the red battery connector. Avoid moving parts. Do not wear loose jackets, shirts, or sleeves when working on machine. Avoid contact with battery acid. Battery acid can cause burns. When working on or around batteries, wear protective clothing and safety glasses. Remove metal jewelry. Do not lay tools or metal objects on top of batteries. Charging batteries generates explosive gasses. Do not charge batteries when open flames or sparks are present. Do not smoke. Make sure the charger is turned off before disconnecting it from the machine. Charge the batteries in a well-ventilated area with the battery cover removed completely. Do not clean machine with a pressure washer.

## **FOR SAFETY IN HANDLING BATTERIES**

Used batteries labelled as recyclable contain reusable economic goods. These batteries must not be added to the normal waste. Follow battery manufacturers instructions regarding proper disposal of the batteries.

*Authorized personnel must perform repairs and maintenance. Use Minuteman® supplied replacement parts.*

## **SAVE THESE INSTRUCTIONS**

## Unpacking Instructions

### Inspection

Carefully unpack and inspect your **Max Ride Sweeper Vac** for shipping damage. Follow unpacking instructions on shipping pallet. Each unit has been tested and thoroughly inspected before shipment. Any damage is the responsibility of the delivery carrier who should be notified immediately.

### Electrical

This machine is battery operated and designed to operate on 24 volts DC (2) 12-volt batteries.

### Batteries

We do not recommend mixing AMP hour capacities. Alternate battery sets can be used if they equal physical size and capacity. If alternate battery sets are used please contact Minuteman for on board charger settings.

### Operator Responsibility

Read this manual carefully before operating this machine.

The operator is responsible for taking care of the daily maintenance and check ups of the machine to keep it in good working condition. The operator must inform the service mechanic or supervisor when the scheduled maintenance intervals are required as stated in the *MAINTENANCE* section of this manual.

Before starting familiarize yourself with the machine and its controls (see “Machine Overview, Front”, “Machine Overview, Rear”, “Control Console” diagrams).



## Machine Overview

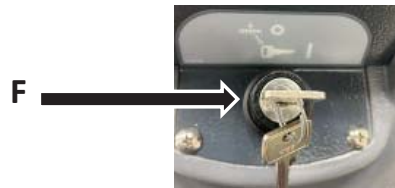
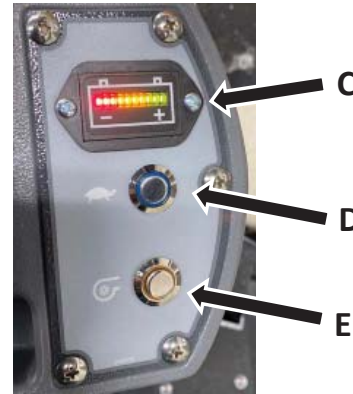
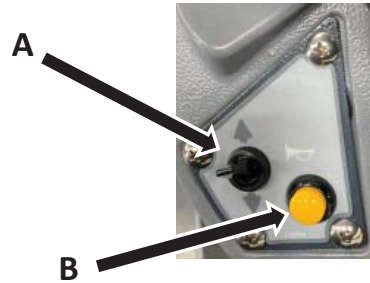
### Machine Overview

- A STEERING WHEEL
- B CONTROL CONSOLE
- C VACUUM HEAD LIFT LEVER
- D ROLLER BUMPER
- E FRONT DRIVE WHEEL
- F SIDE BRUSH
- G ACCELERATOR PEDAL
- H VACUUM HEAD
- I REAR TIRE
- J VACUUM HOUSING TANK
- K LID AND OPERATOR SEAT



**Control Panel**

- A. FORWARD/REVERSE
- B. HORN BUTTON
- C. BATTERY STATUS INDICATOR
- D. TURTLE MODE
- E. VACUUM BUTTON
- F. KEYSWITCH



## Control Panel Descriptions

### Forward/Reverse

**(A)** Pushing the switch forward puts the machine into forward motion. Pushing the switch back puts the machine into reverse.

### Horn Pushbutton Switch

**(B)** Pushing the button sounds the horn.

### Battery Status Indicator

**(C)** Indicates how much battery life remains. When the machine is at 10% runtime only 2 leds will be illuminated. At 5% runtime the LEDS will flash. Vacuum will work for an additional five minutes and then it will shut off until the batteries are recharged.

### Slow Mode Button

**(D)** Pushing this button slows the machine down.

### Vacuum Pushbutton

**(E)** This button illuminates orange when turned on, and activates the vacuum.

### Keyswitch

**(F)** Turns on the machine. Also used to unload the brush when the key is turned left past the off position.

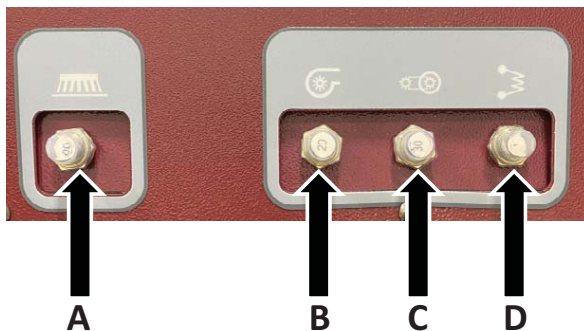
## Rear of Machine

### Circuit Breakers

The circuit breakers are located at the bottom of the back panel of the machine.

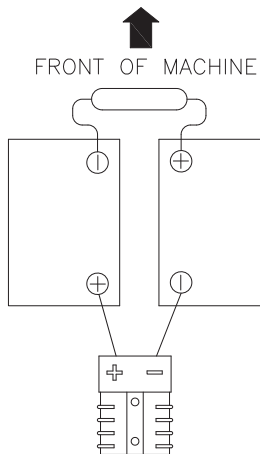
- A**     **Brush Motor Circuit Breakers - 30A**
- B**     **Vacuum Motor Circuit Breaker - 20A**
- C**     **Drive Motor Circuit Breaker - 30A**
- D**     **Control Circuit Breaker - 4.0A**

If any of the functions above are not operating, check if the circuit breaker buttons have tripped. Press to reset.



## Battery Compartment

The battery compartment is located in the rear of the machine under the recovery tank. The battery compartment contains two 12-volt batteries connected in series. Connect the batteries according to the battery connection diagram (see diagram). The battery tray may be drained if necessary using the drain hose located in the rear on the left side of the machine.



## Machine Operation

This machine was designed with total operator comfort and ease of use in mind. All machine components have been designed as a total system to efficiently clean dirty floors.

Before using the machine, always perform the following steps to ensure proper machine operation:

- Check brushes for wear and damage.
- Check the vacuum bag, and change if necessary
- Check the Debris Tray, and empty if necessary

After using the machine, always perform the following steps:

- Check the battery charge level. Charge batteries if necessary. When charging batteries, extra precaution is required:
  - Battery acid can cause burns.
  - When working on or around batteries, always wear protective clothing and safety glasses.
  - Remove metal jewelry. Do not lay tools or metal objects on top of the batteries.
  - Charging batteries generates explosive gasses.

**DO NOT CHARGE BATTERIES WHEN OPEN FLAMES OR SPARKS ARE PRESENT. DO NOT SMOKE.**

- Charge the batteries in a well-ventilated area.
- Fluid levels should be checked before and after charging and maintained at the proper levels. If low, add distilled water until the metal plates are covered.
- If the machine is not used for an extended period of time, batteries should be kept fully charged with a boost charge once a week.
- Empty the Debris Tray.
- Check the vacuum bag, and empty if necessary.
- Check the service records to determine maintenance requirements.

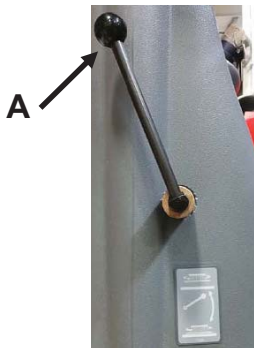
### **WARNING!**

- **Be sure you understand the machine controls and their functions.**
- **While on ramps or inclines, avoid sudden stops when tanks are filled.**
- **Avoid abrupt sharp turns. Slow down driving speed when going downhill.**

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## To Turn on Machine

Turn key clockwise to turn on. Wait for battery gauge to stop flashing. (If flashing continues, see troubleshooting guide)



## To Turn on Vacuum Motor (B)

Lower vacuum head (A), and turn on the vacuum motor by pushing the orange button (B) on the control panel. When the button is illuminated “orange” the Vacuum Motor is “ON”.

## Direction Switch

Select direction of machine by moving the directional rocker switch to the forward or reverse position. The direction of the machine movement is shown on the control panel with forward and reverse arrows.

## Driving

Depress the accelerator pedal, the machine will move in the direction selected using the direction switch. The amount that the accelerator pedal is depressed controls the speed. When the accelerator pedal is not depressed, the electromagnetic brake automatically engages. This prevents the machine from moving when not in use to prevent injury.



LID OPEN-  
NOT IN CONTACT



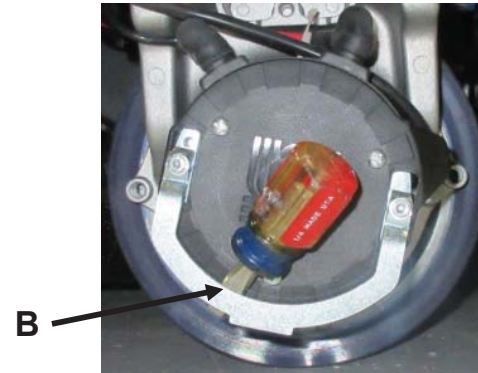
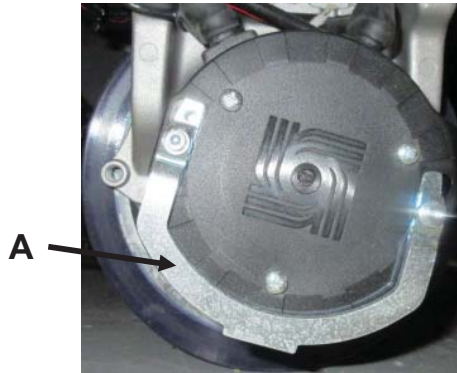
LID SHUT  
IN CONTACT



PRESSURE  
SWITCH

#### Operator Seat Pressure Switch

The Max Ride will not operate unless the operator is sitting in the operator seat. There is a pressure switch (C) located under the operator seat that must be compressed in order for the machine to operate. There are two contact switches located on the vacuum housing tank, and the lid. When the lid is open (A), the two switches are not in contact, and the machine will not operate. When the lid is closed (B), the switches are in contact with each other. When the operator sits in the seat, the machine can be turned on.



**Electromagnetic Brake Release Lever**

The electromagnetic brake release lever (A) is located in the front center of the machine on the drive wheel assembly. The machine must be off in order to use this function. Slip a small flathead screwdriver (B) between the wheel and the brake release lever. This will bypass the electromagnetic brake, so that the machine can be pushed manually when necessary.



## Maintenance

### To Charge Batteries:

When the battery / fault gauge reaches the red zone the batteries need to be recharged. Take the machine to a well ventilated area, unwind the battery charger power cord from the electrical box cover and plug into an appropriate power source. After approximately 10 seconds the battery charge status indicator will turn on.

### To Replace Batteries:

The Max Ride Sweeper Vac contains replaceable batteries. When replacing the batteries, open the back cover, and disconnect the power to the machine by unplugging the red battery connector. Used batteries that are labelled as recyclable contain reusable economic goods. These batteries must not be added to the normal waste. Follow all battery manufacturer guidelines regarding the correct method for disposing of batteries at your location.

**For Wet batteries only:** Check the battery water levels before each use, refill as needed with distilled water.

**Caution: DO NOT OVERFILL. Fill water 1/4 “ - 1/2” above the separators. Failure to maintain the batteries may result in battery failures.**

**WARNING: Charging batteries generates explosive gasses. Do not charge batteries when open flames or sparks are present. Do not smoke. Charge the batteries in a well-ventilated area .**

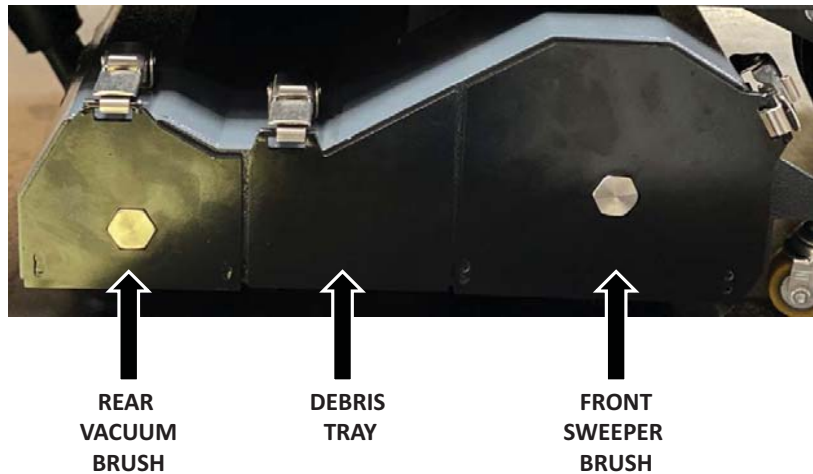
## Dust Particle Filter

The dust particle filter is located inside the vacuum housing tank. The filter keeps dust particles from blowing through into the motor. This filter should be removed, and cleaned out daily.



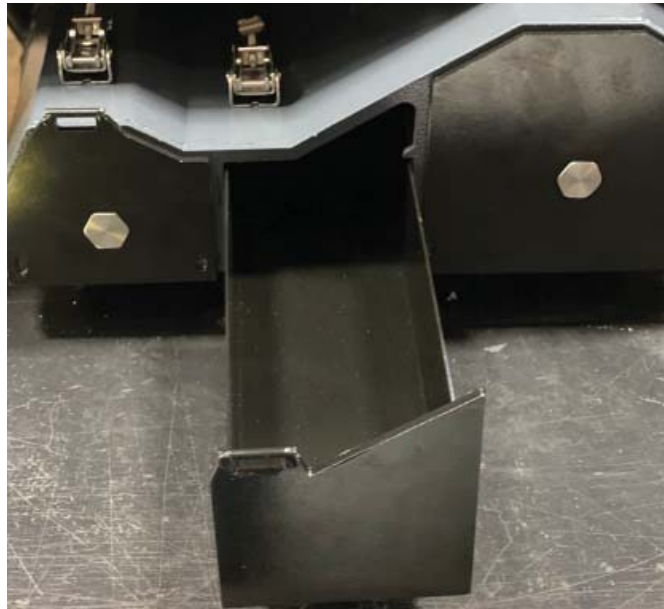
## Vacuum Head

The vacuum contains the front sweeper brush, the debris tray, and the rear vacuum brush. The three latches on top of the vacuum head are used to access the brushes, and the debris tray.



## Debris Tray

The debris tray is located in the vacuum head, and can be accessed by unlatching the latch, and pulling it out. The debris tray should be emptied daily.



## Front Sweeper Brush and Rear Vacuum Brush

The brushes are located in the vacuum head, and can be accessed by unlatching the latches, and pulling them out. The brushes should be removed and cleaned weekly.



<b>Daily</b>	<b>Weekly</b>	<b>Monthly</b>	<b>Yearly</b>
Charge Batteries	Check Each Battery Cell(s) Water Level	Lubrication – Grease Fittings	Check Carbon Brushes
Check particle filter in tank	Check/Clean brushes		
Check/Change vacuum bag			
Empty debris tray			

Have a qualified service technician check the vacuum motor carbon motor brushes once a year or after 300 operating hours. The brush motor and transaxle motor carbon brushes should be checked every 500 hours or once a year.

**NOTE:** Refer to the Service Manual for more detail on maintenance and service repairs.

Regularly scheduled lubrication of certain machine parts should be performed to insure trouble-free operation of the machine.

## Care - After Use

1. When finished vacuuming, push the orange button to stop the vacuum, and raise the vacuum head lift lever, and lift the vacuum head.
2. Move the machine to a service area for daily maintenance and review items that may need service.
3. Remove the brushes and rinse them in warm water and hang to dry. (weekly)
4. Remove the debris tray, and empty it. (daily)
5. Check the maintenance schedule, and perform any required maintenance before storing the machine.
6. Store the machine indoors in a clean dry place. Keep from freezing. Leave solution/recovery tank lid open for ventilation to prevent odor buildup.
7. Turn Key switch OFF (O) and remove key.

<b>Problem</b>	<b>Possible Cause</b>	<b>Remedy</b>
<b>Machine does not operate</b>	Tripped Control Power circuit breaker	Reset breaker
	Batteries have low charge	Recharge batteries
	Battery charger operating	Unplug battery charger when charge is complete
<b>Vacuum motor does not turn on</b>	Vacuum bag full	Empty vacuum bag
	Carbon Brushes worn	Replace carbon brushes
	Vacuum switch disconnected	Connect wiring
	Tripped vacuum motor circuit breaker	Reset breaker
	Orange button not turned on	Push Orange button
<b>Brush does not unload</b>	Tripped brush motor circuit breaker	Reset breaker
	Broken brush motor switch	Replace switch





**Minuteman International Made Simple Commercial Limited Warranty REVISION Q EFFECTIVE 4/1/2018**

Minuteman International, Inc. warrants to the original purchaser/user that the product is free from defects in workmanship and materials under normal use. Minuteman will, at its option, repair or replace without charge, parts that fail under normal use and service when operated and maintained in accordance with the applicable operation and instruction manuals. All warranty claims must be submitted through and approved by factory authorized repair stations.

This warranty does not apply to normal wear, or to items whose life is dependent on their use and care, such as belts, cords, switches, hoses, rubber parts, brushes, electrical motor components or adjustments. Parts manufactured by Minuteman are covered by and subject to the warranties and/or guarantees of their manufacturers. Please contact Minuteman for procedures in warranty claims against these manufacturers.

**Special warning to purchaser** -- Use of replacement filters and/or pre-filters not manufactured by Minuteman or its designated licensees, will void all warranties expressed or implied. A potential health hazard exists without original equipment replacement.

All warranted items become the sole property of Minuteman or its original manufacturer, whichever the case may be.

Minuteman disclaims any implied warranty, including the warranty of merchantability and the warranty of fitness for a particular purpose. Minuteman assumes no responsibility for any special, incidental or consequential damages.

This limited warranty is applicable only in the U.S.A. and Canada, and is extended only to the original user/purchaser of this product. Customers outside the U.S.A. and Canada should contact their local distributor for export warranty policies. Minuteman is not responsible for costs or repairs performed by persons other than those specifically authorized by Minuteman. This warranty does not apply to damage from transportation, alterations by unauthorized persons, misuse or abuse of the equipment, use of non-compatible chemicals, or damage to property, or loss of income due to malfunctions of the product.

If a difficulty develops with this machine, you should contact the dealer from whom it was purchased.

This warranty gives you specific legal rights, and you may have other rights which vary from state to state. Some states do not allow the exclusion or limitation of special, incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions and limitations may not apply to you.

Model	Parts	Labor	Poly	Travel**
Cord Electric Group	5yrs	3yrs	12yrs	90 days
Battery Auto Scrubbers (incl. on board charger)	5yrs	3yrs	12yrs	90 days
Battery and Manual Sweepers	3yrs	3yrs	12yrs	90 days

**Exceptions.....**

Model	Parts	Labor	Poly	Travel**
Port A Scrub, all models (incl. on board charger)	1yr	6months	12yrs	90 days
A3S Blower	1yr	1yr	0	0
Phenom Dual Motor Upright Vacuums	2yrs	2yrs	0	0
Explosion Proof Vacuum	1yr	1yr	0	0
Propane Burnisher	1yr	1yr	0	90 days
E14BQP and E14115 scrubber	1yr	1yr	12yrs	90 days
EZ-Mop	1yr	1yr	0	90 days
ROS-17	1yr	1yr	0	90 days
**Travel, 2 hours max				

<i>Stand-alone Battery Chargers:</i>	One year
<i>Replacement Parts:</i>	Ninety days
<i>Batteries:</i>	0-3 months full replacement, 4-12 months pro-rate
<i>Polypropylene Plastic Tanks:</i>	12yr warranty, no additional labor



***“Excellence Meets Clean”***

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