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SWEEP-N-CLEAN



SW-48 SELF POWERED PULL-TYPE SWEEPER

**OPERATOR'S INSTRUCTIONS
AND PARTS MANUAL**

=T.I.P. Inc.=

SW-48 Sweep-N-Clean

Congratulations on your purchase of the T.I.P. SW-48 Sweep-N-Clean!
 You can rest assured that you have one of the highest quality multi-purpose sweepers on the market today. With proper care and maintenance, your Sweep-N-Clean will provide you with years of reliable service. If you have any questions about the Sweep-N-Clean, or any of our other turf care products, feel free to call us or drop us a line. We would be delighted to serve you in the future. Thank you for your patronage.

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=T.I.P. Inc.= **Limited Warranty**

T.I.P. Inc. warrants that the equipment it manufactures will be free from defects in materials and workmanship for a period of one year from delivery date. This warranty is extended to the Original Purchaser only, and is non-transferrable.

Should a defect in materials or workmanship be experienced within the warranty period, T.I.P. Inc. shall, at its discretion, furnish F.O.B Custer, WI, new or remanufactured parts to replace the non-conforming parts. T.I.P. Inc. shall not cover any labor costs incurred by the purchaser to replace said parts.

This warranty is limited to new equipment, parts or accessories that are manufactured by T.I.P. Inc., provided that the equipment is used and maintained according to the instructions in the manual, and the Original Purchaser has completed, signed and returned the enclosed Warranty Registration form to T.I.P. Inc. within 30 days after the delivery of said equipment. This warranty does not apply to damage or deterioration to the equipment resulting from, but not limited to; natural wear and tear, abuse of goods, presence of abrasives, chemical action, improper installation, misuse, vandalism, or acts of God. This warranty does not apply to goods manufactured by others, beyond the warranties stated by the manufacturers for those goods.

The limited warranty expressed hereunder, is exclusive, and T.I.P. Inc. makes no other representations, warranties, or guarantees, neither expressed nor implied, as to merchantability or the fitness of said equipment for any particular use or purpose, or that the equipment or installation of equipment when placed into operation will comply with applicable national, state, and local health and safety laws. T.I.P. Inc. shall not be liable for any consequential or indirect damages including, but not limited to, loss of anticipated profits or production, increase of cost of operation, loss due to spoilage of material, damage caused directly or indirectly to other property or goods, or penalties or fines arising from non-compliance.

GENERAL INFORMATION

SW-48 SWEEP-N-CLEAN

Congratulations on your purchase of the T.I.P. SW-48 Sweep-N-Clean! You can rest assured that you have one of the highest quality multi-purpose sweepers on the market today. With proper care and maintenance, your Sweep-N-Clean will provide you with years of reliable service.

This Operator's Manual should be available to all who will use or maintain the Sweep-N-Clean, and should be kept wherever the machine is being utilized. All personnel working with or performing service on the equipment shall read the manual and rigorously follow its instructions.

T.I.P. Inc. continuously strives to provide the best equipment and service available. As such, T.I.P. Inc. reserves the right to make changes to products and to specifications and information given in this Operator's Manual without any prior notification.

DEFINITIONS

Following are the definitions of some of the terms used in this manual.

Tow Vehicle:	The Tractor, Cushman, Garden Tractor, A.T.V., or other vehicle used to pull the Sweep-N-Clean.
Machine:	The Sweep-N-Clean.
Machine Rear:	The end of the machine where the Hopper is located.
Machine Front:	The end of the machine where the Draw Bar for the tow vehicle is located.
Operator:	The person that will operate the equipment. The Operator will be able to start and stop the machine, as well as check and supervise its operation. It is the company's responsibility to ensure the Operator is sufficiently trained.
Dangerous Areas:	Areas in and around the Sweep-N-Clean where physical injuries can be caused.

Maintenance Mechanic: The person who knows the entire Sweep-N-Clean, its function and safety standards, who can adjust safety controls and provide the machine's maintenance. It is the company's responsibility to ensure the Maintenance Mechanic is sufficiently trained.

Safety Symbols:

The Sweep-N-Clean has standardized safety pictogram stickers in several places.

The upper part of the stickers warns against a general or specific danger.

The lower part shows the kind of danger the warning is referring to or indicates what you should do.



APPLICATION

The Sweep-N-Clean is designed to pick up leaves, grass clippings, branches, and other debris from all turf-type surfaces. The Sweep-N-Clean collects all picked up debris into an incorporated hopper, which can be emptied from the seat of the tow vehicle via the electric 12 volt dump.

The Sweep-N-Clean is developed to work on land free from obstacles, such as stones, tree stumps, heavy roots, or other hard objects. It is NOT appropriate to use the Sweep-N-Clean in areas containing dangerous and/or chemical substances, explosive substances, or in areas where dangerous and/or chemical substances have been mixed.

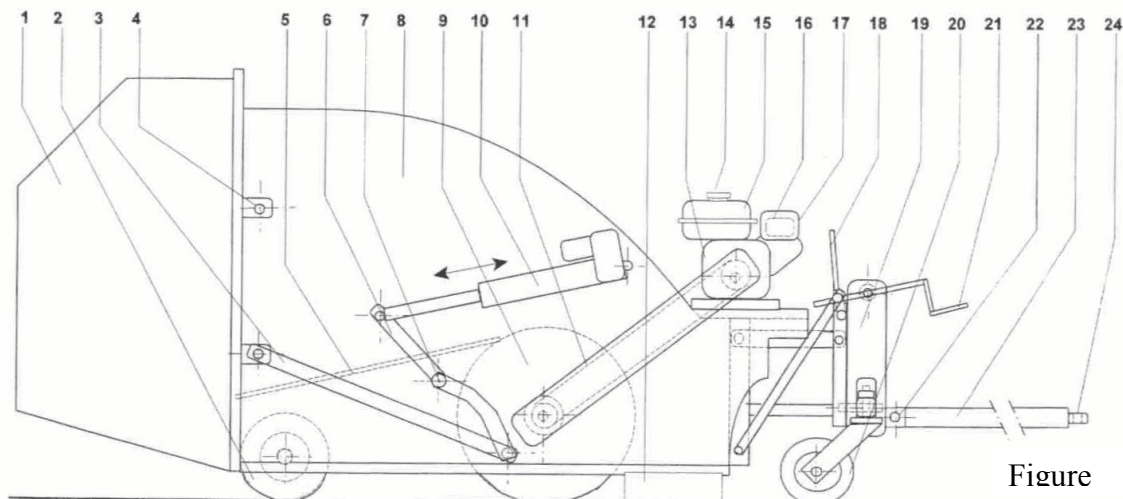
The Sweep-N-Clean shall be used for its developed purpose ONLY. Use in any way other than described above will render the warranty and product liability void.

The Sweep-N-Clean may only be connected to a tow vehicle with sufficient power to operate it, using the appropriate connecting pin with safety pin.

The Sweep-N-Clean has been engineered and manufactured according to the regulations of the European Machine Directive, and is identified by the CE marking. Any use of this machine other than described above is not according to this directive. Be sure to only connect the Sweep-N-Clean to a tow vehicle which is CE- approved and of sufficient horsepower.

FEATURES

SW-48 SWEEP-N-CLEAN



Figure

- | | | |
|---------------------------------|--------------------------|----------------------------|
| 1...Hopper | 9...Brush | 17...Exhaust/Cover |
| 2...Rear Wheel (x4) | 10...Actuator | 18...Lever, Transport |
| 3...Hopper Linkage (x2) | 11...V-Belt | 19...Pull Frame w/ Casters |
| 4...Hinge Point, Hopper | 12...Rubber Apron | 20...Caster (x2) |
| 5...Carry Off Plate | 13...Engine, Brush Drive | 21...Height Adjust. Screw |
| 6...Actuator Lever, Hopper | 14...Fuel Filler Cap | 22...Hinge Point, Drawbar |
| 7...Hinge Point, Actuator Lever | 15...Fuel Tank | 23...Drawbar |
| 8...Main Frame | 16...Air Intake/Cleaner | 24...Drawbar, Clevis |

The SWEEP-N-CLEAN is provided with a gasoline engine (13) for driving the brush (9) via the V-Belt (11).

By adjusting the tow speed, the brush speed, and the brush height, sweeping results can be maximized.

The SWEEP-N-CLEAN has been developed to be pulled by a tow vehicle, connected at the drawbar. (23)

The brush (9) can be switched on/off, and the hopper (1) can be opened/closed via a switchbox that is placed near the driver's seat on the tow vehicle.

The rotation of the brush (9) is opposite the direction of travel of the machine, so the swept debris are picked up and deposited into the hopper (1).

The topside of the hopper is perforated to allow the air stream to escape that is created by the brush.

The height adjustment of the brush (more or less aggressive sweeping) is accomplished by the Height Adjustment Screw (21).

The height of the Sweep-N-Clean can be moved to the transport position with the use of the lever (18) and the transport locking pin.

The Pull Frame (19) is provided with a floating axle to ensure all wheels remain in contact with the ground over rolling terrain.

SWITCH BOX

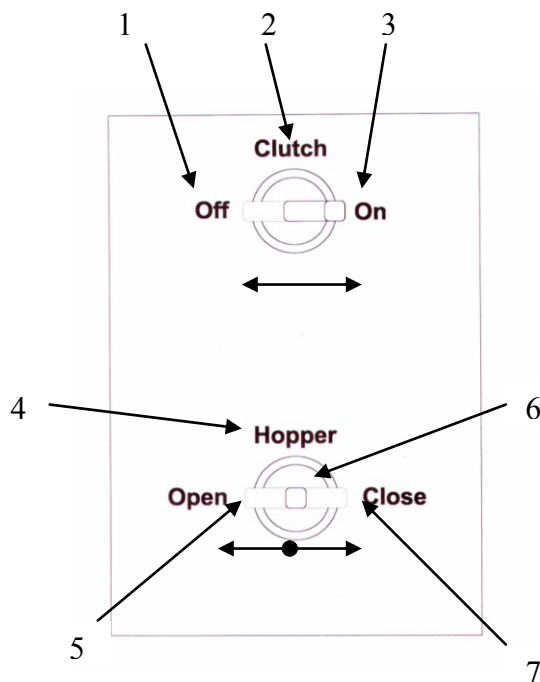
Figure 2

CLUTCH

- 1...Off
- 2...Clutch
- 3...On

HOPPER

- 4...Hopper
- 5...Open
- 6...Stop
- 7...Close



SAFETY

SW-48 SWEEP-N-CLEAN

UNDERSTAND AND FOLLOW SAFETY INFORMATION

ALL OPERATORS should read and understand all safety information and operating instructions for the Sweep-N-Clean, and learn how to use the controls properly. Do Not let anyone operate without proper instruction. NEVER use the Sweep-N-Clean for any purpose other than what it is designed for.

SAFETY LABELS

Make sure that ALL OPERATORS can recognize and understand all safety-warning labels on the machine. Keep all safety labels in good condition, and replace those that are missing or damaged. Replacement safety labels are available from your dealer.

Your equipment shows the following pictograms.

LEARN ABOUT THESE PICTOGRAMS AND WHAT THEY STAND FOR.

1.

CAUTION! Read the Sweep-N-Clean operator's manual thoroughly, so you know precisely what all the settings and switches are used for before you start using the machine.



2.

CAUTION! Before performing maintenance:

- Read the operator's manual.
- Make sure both Sweep-N-Clean's engine and tow vehicle are both turned off with keys removed.
- Be sure electric clutch switch is turned off.
- Place a sign, "Maintenance-Out Of Order" on the switch box.



Prevent dangerous situations that may arise if one of the machine's parts starts working suddenly.

3.

CAUTION! Danger of serious injury through pinching between the rotating brush and the machine frame.

- Never attempt to clean rotating brush.
- Never enter near the running brush.
- All personnel should remain at least 15 feet away from working machine at all times.
- Consult Operator's Manual.
- Always support the machine properly before working underneath.
- Turn off tow vehicle and remove the starter key.



4.

CAUTION! Danger of serious injury through pinching between the main frame and the closing hopper.

Be sure that all personnel are at least 15 feet away before operating the hopper.



5.

CAUTION! Danger of injury through pinching around the Front Carriage parallel linkage and near the hitch pivot point.

- Keep hands away from these areas when connecting or disconnecting tow vehicle to or from machine.
- Only connect or disconnect machine on a level surface.
- Always block wheels before connecting or disconnecting.



6.

CAUTION! Danger of serious injury around the V-Belt drive and V-belt pulleys. Before maintenance:

- Read the instruction manual.
- Lift the machine to its transport position and lock into place with the locking pin.
- Shut off the engines on the brush and the tow vehicle.
- Remove the safety shield.
- Always put safety shield in position before starting engine.



7.

CAUTION! Danger of serious injury through collision with Sweep-N-Clean.

Make sure that only fully trained personnel operate the Sweep-N-Clean.

Only operate machine with all other personnel at least 15 feet away.



8.

CAUTION! Danger of serious injury between the main frame and the wheels.

- In case of blockage, STOP THE TOW VEHICLE. Wait until the machine is completely stopped before cleaning the wheels.
- Keep clear of running wheels.
- Maintain a distance of at least 15 feet when machine is in operation.

9.

WARNING! Be aware, running on sloping hills is limited.

- Drive slowly (lowest gear).
- Drive forward only when going down ramps or hills.
- Never drive across ramps or hills. Tip over can occur.

10.

WARNING! Danger of serious injury under the machine during cleaning or maintenance.

Always properly support the Sweep-N-Clean before performing maintenance.

11.

CAUTION! Danger of serious injury.

Never carry passengers on the Sweep-N-Clean.

12.

CAUTION! Danger of serious injury.

The engine on the Sweep-N-Clean produces more than 80dbA of noise.
Always use proper hearing protection.

13.

CAUTION! Danger from fire.

Keep all cigarettes, lighters, matches or other open flames away from fuel tank.
Fill the fuel tank only in areas with proper ventilation.
Keep the engine free of dust and other flammable materials.

14.

CAUTION! Danger from Carbon Monoxide (CO) suffocation.

Exhaust gases in a confined space can cause serious injury, even death.

15.

CAUTION! Danger of serious injury.

Only use the Sweep-N-Clean for the purpose described in the "Applications" section, pg. 4.
If in doubt, consult your dealer.

16.

WARNING!

The tow vehicle used to pull the Sweep-N-Clean must have sufficient capacity.
(See Specifications, pg. 21)

17.

WARNING! Be aware for serious injury.

- Always inspect the connection pin and safety pins for damage or wear before use.
- Replace if necessary.
- Be sure to keep the Sweep-N-Clean and its surrounding area clean and free of debris that may cause interference in operation or adjustment.

18.

This machine is designed for off-road transport only.

If the machine must be moved over the road, do so only on a trailer that meets all local laws, particularly minimum speed, length/width, lighting, rotating lights, reflector plates, etc.

19.

CAUTION! Danger of injury.

- Ensure that all warning stickers remain perfectly legible.
- Immediately replace them if they become damaged.
- Replacement stickers are available through your dealer.

20.

CAUTION! Be aware for injury.

- Repair and maintenance of the Sweep-N-Clean must be performed by T.I.P. INC. authorized people.
- Spare parts used for the Sweep-N-Clean must be original T.I.P. INC. or CE-certified.

21.

CAUTION! Danger of serious injury.

Keep all unauthorized people and especially children away from the operating Sweep-N-Clean.

22.

CAUTION! There is a danger of serious injury if the Sweep-N-Clean is operated by:

- Persons younger than 16 years of age.
- Persons who are not qualified to drive the tow vehicle.
- Persons without sufficient knowledge concerning the dangers in and around the Sweep-N-Clean.

23.

CAUTION! Danger of injury.

- The Sweep-N-Clean may only be used by experienced drivers who have a complete knowledge of the contents of this manual.
- Ensure that all new operators receive all security regulations and operating instructions.

24.

WARNING! Be aware for serious injury.

Take care that you have every condition/situation under complete control with the Sweep-N-Clean.

Operate the tow vehicle at a ground speed slow enough to ensure complete control at all times.

25.

The operator determines the limits for "Working Safely" with the Sweep-N-Clean.

- Do not take any risks.
- Be careful, especially when blockages or any other disturbances occur.
- Always stop the Sweep-N-Clean and the tow vehicle first.
- Secure equipment against accidental start-up.

SET-UP

SW-48 SWEEP-N-CLEAN

CONNECTION TO TOW VEHICLE

If your Sweep-N-Clean came delivered on a pallet, first remove machine from pallet, and connect the draw bar hitch to the front of the machine using the two 5/8 x 2-1/2 inch bolts and lock nuts provided. Snug bolts to allow for easy movement of the hitch.

Connect the pin-type hitch to your tow vehicle using a pin that is the appropriate diameter, and secure with a safety clip to ensure pin does not come out during operation.

CAUTION!

Be sure that the tow vehicle has sufficient power and braking capacity to safely pull the Sweep-N-Clean before use.

ELECTRICAL CONNECTION

The Sweep-N-Clean utilizes the 12v electrical supply from the tow vehicle to operate the electric clutch and to open and close the clamshell hopper cover.

Connect the alligator clips from the machine to the battery of the tow vehicle, being sure to connect the red clip to the positive side of the battery, and the black to the negative. Be sure that clips and wires are properly secured so they will not vibrate off during operation.

CAUTION!

Avoid direct contact with the battery terminals and the un-insulated portion of the alligator clips. Electrical shock could result.

Unroll cord and switch pendant. Locate switch pendant near operator on tow vehicle, and secure in place.

BRUSH HEIGHT ADJUSTMENT

Properly adjusted brush height will provide you with the best sweeping action and the longest bristle life. It is necessary to do this adjustment before using the Sweep-N-Clean for the first time, and periodically as routine maintenance.

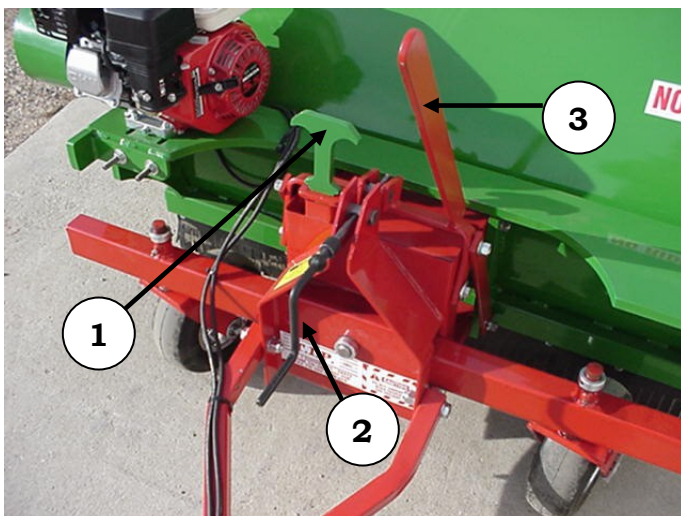


Fig. 1:

1. Brush Adjustment Transport Pin.
2. Brush Height Adjustment Screw.
3. Brush Up-Down Lever in "Up" (forward) Position.

With machine sitting on a flat, level surface, hold on to the Brush Up-Down Lever, remove the Brush Adjustment Transport Pin, and then ease the Brush Up-Down lever to it's down (rearward) position. Be sure not to let the machine "slam" into the ground when pulling the transport pin. (Fig. 1) You may replace the transport pin into the pin tube when machine is in the "Down" position.

Adjust the brush height by turning the Brush Height Adjusting Screw. (Fig. 1) The brushes, when properly adjusted, should make a light sweeping pattern 2 to 3 inches wide and uniform along the brush centerline. (See Fig. 2) Too much pressure on the brushes will cause excessive wear and reduce sweeping efficiency.

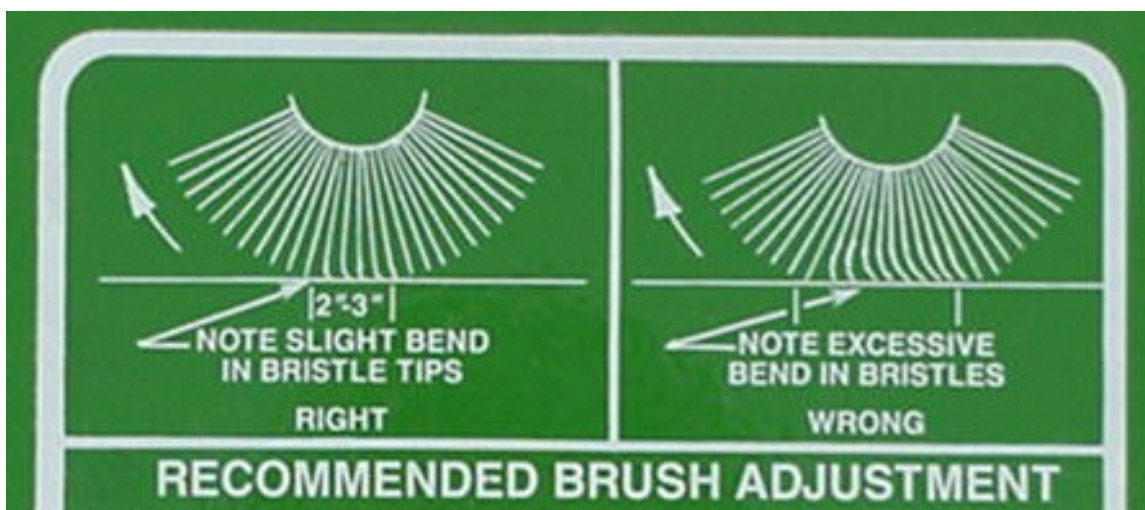


Fig.2

When sweeping operation is complete, be sure to store brushes in the "Up" position, and not in contact with the ground.

ENGINE/DRIVE TRAIN

The engine should be checked for proper lubrication levels before first use according to the engine manufacturer's Owner's Manual.

Fill fuel tank with regular unleaded gasoline.

CAUTION!

Do not expose gasoline to sparks or open flames. Do not smoke when filling gasoline tank on engine. Explosion or fire may result.

Remove the side shield and check v-belt for proper tension. When pressed in the center of the belt, there should be $\frac{1}{2}$ to 1" of travel. If the belt needs to be tightened, loosen the belt idler pulley bracket bolt and tighten the belt by pressing the idler pulley into the belt. Retighten the idler bracket bolt and retest the belt tension. Repeat the procedure if necessary. After the tension is adjusted correctly, reinstall the safety shield, making sure that the electrical wires are positioned in a way as to not get damaged by the shield.

OPERATION

SW-48 SWEEP-N-CLEAN

Review and follow all safety information before operating the Sweep-N-Clean. Only properly trained personnel should operate the Sweep-N-Clean. Be sure all Set-Up procedures have been completed.

CHECK BEFORE USE

The operator must check the following points on the Sweep-N-Clean before every use of the machine:

- Check for any bent, dented, cracked, or otherwise broken parts
- Check the brushes for damage or wear.
- Check the tires for proper air pressure.
- Check the hopper, actuator, and connecting linkage for smooth operation.
- Check the electric clutch for proper operation.
- Visually inspect the parallel linkage, front axle, hopper linkage, etc. for loose bolts.
- Visually inspect the rubber skirt in front of the brush for wear.

If any defects or malfunctions are discovered, DO NOT start to operate the Sweep-N-Clean, but contact the responsible maintenance mechanic for repairs.

STARTING THE MACHINE

Verify that electrical connections are made with the tow vehicle and that the hitch pin is secured in place. Before starting engine, be sure electric clutch switch on the switch pendant is in the “OFF” (disengaged) position, and the Brush Up-Down lever is in the “Up” position.

Start engine according to the engine operator’s manual.

BRUSH OPERATION

After you reach the location where the sweeping is to be done, bring the tow vehicle to a stop, and lower the brushes by pulling the Brush Adjustment Transport Pin and lowering the Brush Up-Down lever.

CAUTION!

Be sure to have a good hold on the Brush Up-Down lever before pulling the Transport Pin. When brushes are down, replace the Transport Pin back in the Transport Pin Tube.

Start the engine, if you haven't already.

Start the brushes rotating by turning on the electric clutch toggle switch. The clutch may be engaged at any engine RPM. Turn toggle switch to the Off position to disengage power to the brushes. The brushes will coast to a stop.

WARNING!

Keep hands and feet clear of rotating brush. Serious injury could result from pinching between brush and frame.

CAUTION!

To avoid possible damage to golf course greens, do not engage or disengage brushes while on greens. Whenever possible, drive across greens in a straight line only.

How well the Sweep-N-Clean picks up debris is dependent on drive speed. Adjust the speed of the tow vehicle to effectively pick up all the desired debris.

The machine's effectiveness is also dependent on brush rotation speed. This can be adjusted by using the throttle on the brush drive engine.

Drive speed and brush rotation speed may have to be re-adjusted for every different type of surface to be swept. Experimentation will result in finding the right combination for maximum effectiveness in each situation.

After sweeping is complete, disengage the brush by turning Off the electric clutch switch on the switch pendant.

HOPPER OPERATION

When collection hopper is full, disengage electric clutch before emptying.

Position Sweep-N-Clean into the area that you want to unload sweepings.

Clamshell hopper lid is raised and lowered by the Open-Close switch on the control pendant. Holding the switch in the open or close position will cause the hopper cover to move. Releasing the switch at any point will cause hopper cover to stop. After opening the cover, it may be necessary to pull the machine ahead slightly to completely empty hopper contents. When hopper is empty, close cover.

CAUTION!

Make sure to NOT hold the switch in either the Open or Close position beyond the mechanical limit of the actuator. Prolonged operation at the mechanical limits will cause actuator failure.

WARNING!

Keep all personnel away from the clamshell hopper cover and all it's components during operation. Serious injury could result if personnel is not clear.

TRANSPORT

Any time the machine is being transported from one location to another, the brushes must be raised off of the ground. With the tow vehicle stopped and secured from rolling, move the Brush Up-Down lever to the "Up" (forward) position and lock in place with the Brush Adjustment Transport Pin. Failure to do so may cause damage to brushes.

END OF DAY

When you are finished using the Sweep-N-Clean, be sure to clean the entire machine, both inside and out. Wash away any dirt or mud buildup, especially from the brush frame and from the inside of the hopper.

CAUTION!

Do Not spray water on the brush drive engine while it is still hot! Rapid or uneven cooling if the engine may cause damage. Give the engine sufficient time to cool before cleaning.

If the Sweep-N-Clean is to be left attached to the tow vehicle, make sure electric clutch is disengaged after tow vehicle engine has been turned off. Electric clutch will not automatically disengage with engine shut-off. An engaged electric clutch will draw moderate amounts of power, and will drain a battery in short order if tow vehicle engine is not running.

If the Sweep-N-Clean is to be disconnected from the tow vehicle, disconnect the electrical supply cables and make sure that the switch pendant is free from the tow vehicle. Before disconnecting, make sure that the Sweep-N-Clean's wheels are blocked to prevent rolling before pulling the hitch pin.

Inspect the Sweep-N-Clean for any signs of damage or wear. Report any damage to the appropriate maintenance mechanic.

MAINTENANCE

SW-48 SWEEP-N-CLEAN

CAUTION! Be sure to read and understand the SAFETY section of this manual before performing any maintenance on the machine. Be sure motor is off and all power is disconnected before performing maintenance.

All maintenance on the Sweep-N-Clean should only be performed by a qualified, properly trained Maintenance Mechanic.

LUBRICATION/MAINTENANCE SCHEDULE

The following maintenance and lubrication recommendations assume normal use. Maintenance and lubrication should be carried out more frequently under heavy use or extreme conditions.

g = grease o = oil
d = daily w = weekly m = monthly

	g/o	d/w/m
1 Clean and check brushes for wear or damage.	-	d
2 Check rubber apron for wear or damage.	-	d
3 Lubricate all grease points on the machine:		
a. Brush Axle	g	w
b. Front and Back Wheels (lift and block machine safely)	g	w
c. Front Caster Axles	g	w
d. Actuator/Hopper Pivot Tube	g	m
4 Lubricate all pivot points on the machine:		
a. Hitch Pivot	o	w
b. Front Floating Axle Pivot	o	w
c. Parallel Linkage Bushings	o	w
d. Actuator Mounting Points	o	w
e. Hopper Linkage	o	w
f. Hopper Pivot Point	o	w
5 Check brush for proper height adjustment, adjust with Height Adjustment Screw if necessary.	o	w
6 Check V-Belt for wear or damage; Check and adjust V-Belt tension. (1/2 to 1" push-in (12 to 25mm))	-	w

g = grease o = oil
d = daily w = weekly m = monthly

	g/o	d/w/m
7 Check actuator for proper operation. Inspect particularly for unusual noise or for binding.	-	w
8 Check electric clutch for proper engagement.	-	w
9 Inspect all wiring for for pinching, wear or cuts.	-	w
10 Inspect entire machine for wear spots in the paint. Re-paint worn spots or coat with grease or oil to prevent rust.	-	m
11 Maintain and lubricate the Brush Engine according to the engine operator's manual maintenance schedule.	as recommended	

Be sure to clean off all excess grease and oil from the machine after performing the scheduled maintenance. All hazardous waste should be disposed of properly.

CLEANING

The Sweep-N-Clean should be cleaned regularly to ensure optimal sweeping results, and to help identify early signs of wear or damage.

If you clean the Sweep-N-Clean with a high pressure washer, be sure to use the minimum amount of pressure necessary to remove all the dirt. Be sure to avoid bearings and electrical components with the high pressure washer whenever possible to prevent damage.

REPAIRS

Sweep-N-Clean repairs must be performed by an authorized dealer's service technician. It is recommended that your Sweep-N-Clean undergo a regular check-up with your dealer annually.

ENVIRONMENT

SW-48 SWEEP-N-CLEAN

GENERAL

Dispose of old lubricating oil, oil stained cleaning cloths and any detergents separately as chemical waste.

ENVIRONMENTAL CONSEQUENCES

LIFE SPAN

The Sweep-N-Clean's life expectancy depends on maintenance, operating hours and conditions in the surrounding areas (dust, pollution, humidity and similar factors). Good maintenance increases the Sweep-N-Clean's life expectancy.

DISPOSAL

It is preferable to have the disposal and processing performed by an approved dismantling or demolition company that has the required licenses.
Appoint a competent person to be responsible for supervising the disposal.

WASTE DISPOSAL

Appoint a competent person to be responsible for supervising the disposal.
Sort dismantled equipment according to the equipment's characteristics and pollution.
Separate all materials classed as chemical waste, such as oil, lubricants, batteries and certain electrical components. Dispose of these as chemical waste.
Residual materials should go to approved waste processing facilities that have the required licenses.

TROUBLESHOOTING

SW-48 SWEEP-N-CLEAN

PROBLEM	POSSIBLE CAUSE	SOLUTION
Brush is Not Running	Electrical Supply Cable Unplugged	Make connection.
	Brush Engine is Not Running	Start Engine. Check Fuel Tank. See Engine Manual. Contact Your Dealer.
	V-Belt Broken or Tension Too Low	Adjust Tension or Replace Belt.
	Clutch Won't Engage	Check Electrical Connection to Tow Vehicle. Check Switch and Wiring. Contact Your Dealer.
Machine is Not Sweeping All Debris Properly	Machine in Transport Position	Lower front of machine.
	Brush is Loaded with Debris	Clean Brush.
	Brush Height Adjustment Not Optimal	Adjust brush to contact between 2 to 3 inches of surface.
	Brushes Damaged or Worn	Replace Brushes.
	Driving Speed Too High	Reduce Speed
	Brush Rotation Speed Not Optimal	Adjust throttle on Brush Engine.
Hopper Does Not Open or Close	Electric Supply Cable Unplugged	Make Connection.
	Actuator Not Working	Check switch and wiring. Make sure actuator is plugged in. Contact your dealer.
	Actuator Working Defectively	Contact your dealer.
	Hopper Linkage is Binding	Check to make sure all bolts are tight. Make sure there are no obstructions. Contact your dealer.
All Other Troubles	Various	Contact your dealer.

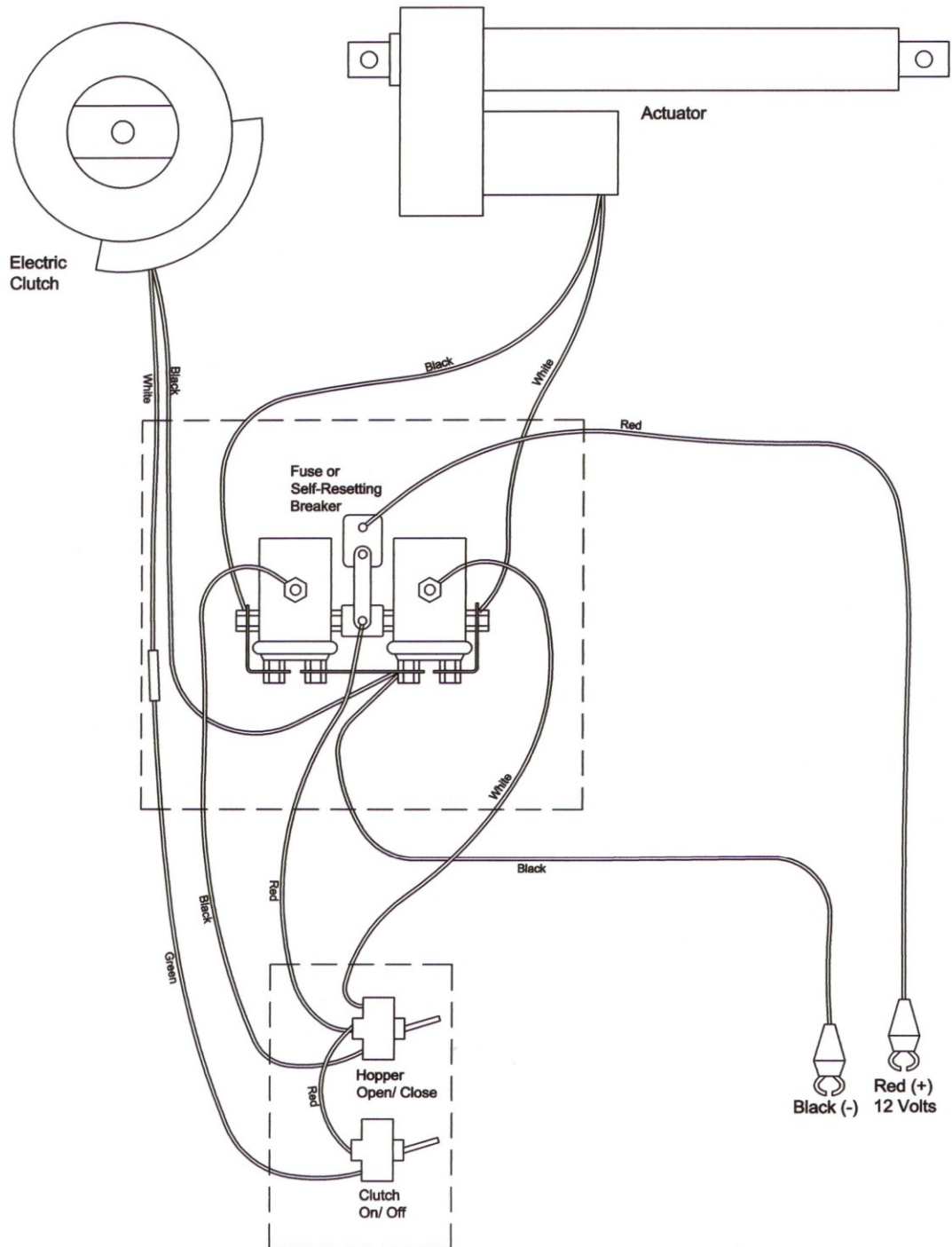
SPECIFICATIONS

SW-48 SWEEP-N-CLEAN

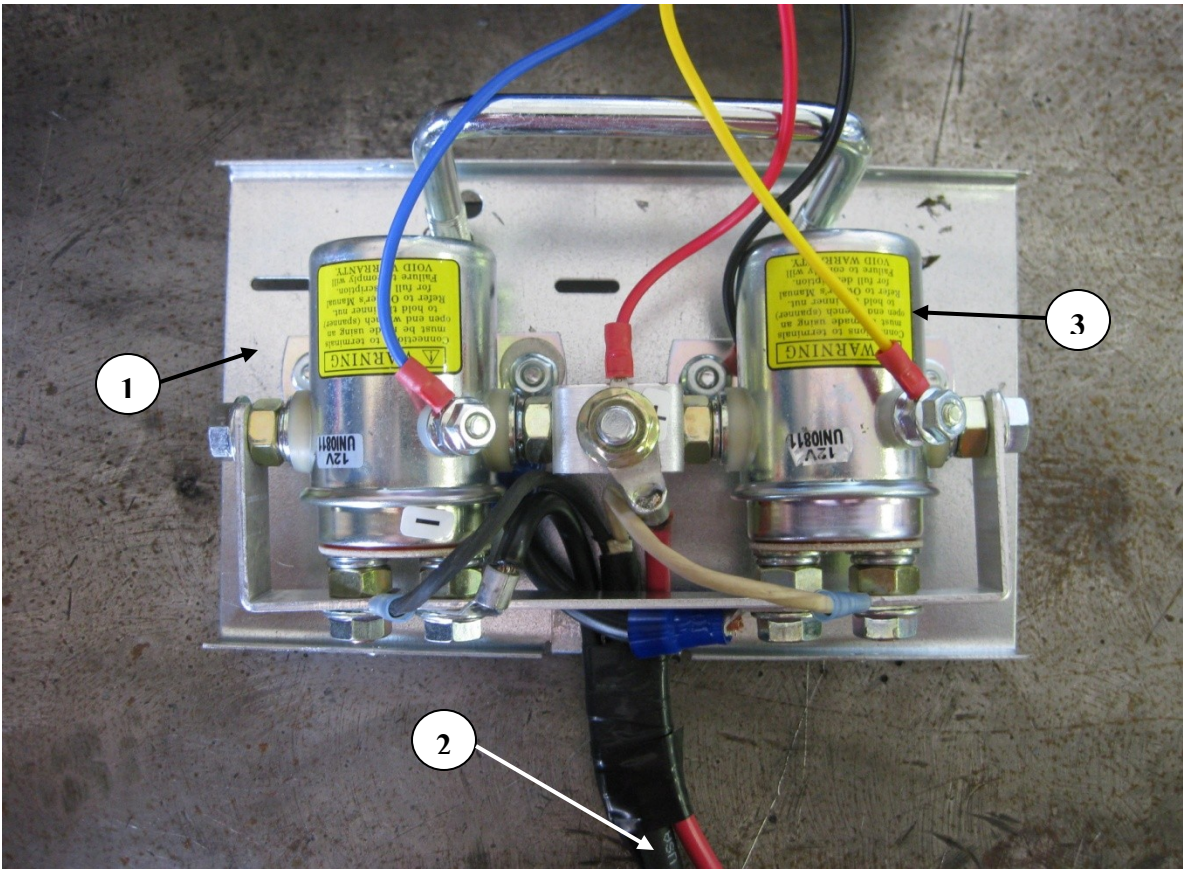
	<u>USA</u>	<u>Metric</u>
Height:	47"	1.2 m
Width:	55"	1.4 m
Length (including hitch):	134"	3.4 m
Empty Weight:	950lbs.	430 kg
Hopper Capacity:	25 cu. Ft.	700 l
Engine Size:	5.5 hp	4 kW
Fuel Capacity:	.66 gal.	2.5 l
Drive Belt:	B54 (57")	(1450 mm)
Brush Diameter	18"	45 cm
Hitch Pin Dia.	9/16"	14 mm
Tire Size		
Front:	11x4.00-5	---
Rear:	13x6.50-6	---
Tire Pressure (Max)		
Front:	46 psi	320 kPa
Rear:	28 psi	190 kPa
Tow Vehicle Min. Power	20 hp	15 kW
Tow Vehicle Max Speed	10 mph	16 km/h

Wiring Diagram #1

SW-48 SWEEP-N-CLEAN

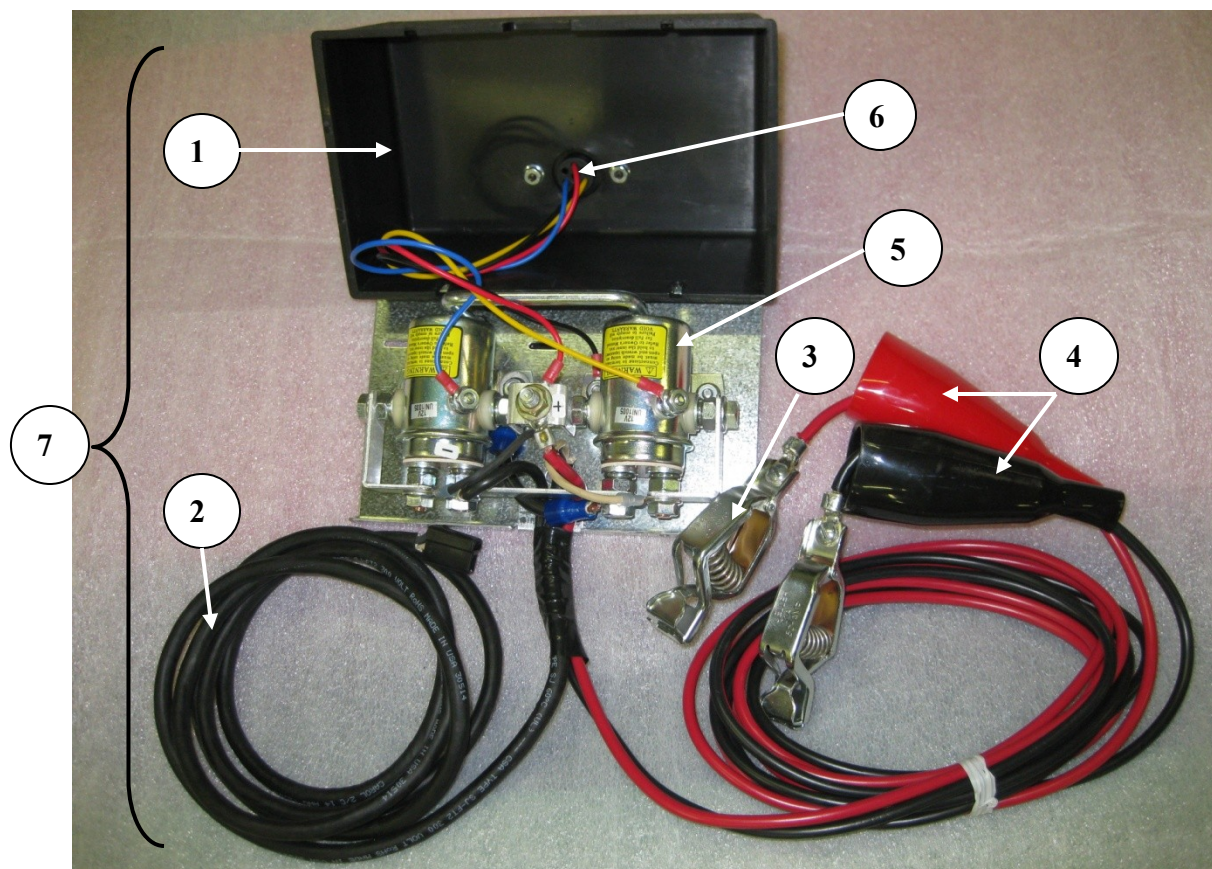


Wiring Diagram #2



Ref	Part#	Description	Qty
1	SW90 – 32070	Back Plate	1
2	WA189101361	16/4 SJ Service Cord (12ft)	1
3	SW2237	12V Solenoid	2

TP4001A Kit



Ref	Part#	Description	Qty
1	SW90 – 31079	Cover	1
2	WA189101361	16/4 SJ Service Cord (12 ft)	1
3	MC7236K15	Alligator Clip – Heavy Duty	2
4	MC7236K211	Insulator Sleeve – Red – Large	1
	MC7236K212	Insulator Sleeve – Black – Large	1
5	SW2237	12V Solenoid	2
6	SW90 – 25048	Socket with Wiring	1
7	TP4001AKIT	Entire Control Box w/ Wiring (Everything shown in picture above except U-Bolt)	1

DECAL PLACEMENT

SW-48 SWEEP-N-CLEAN

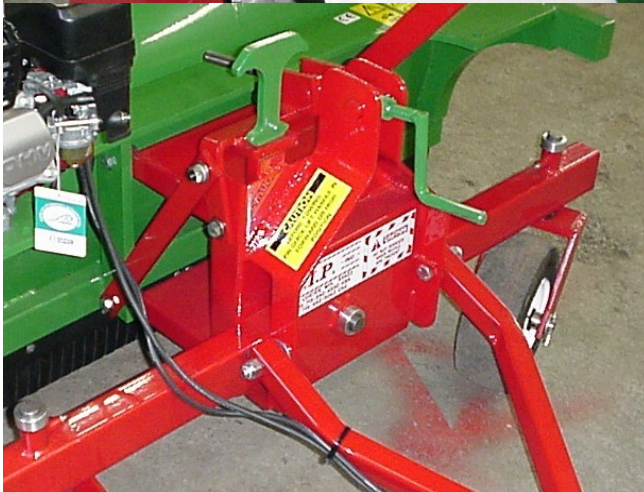
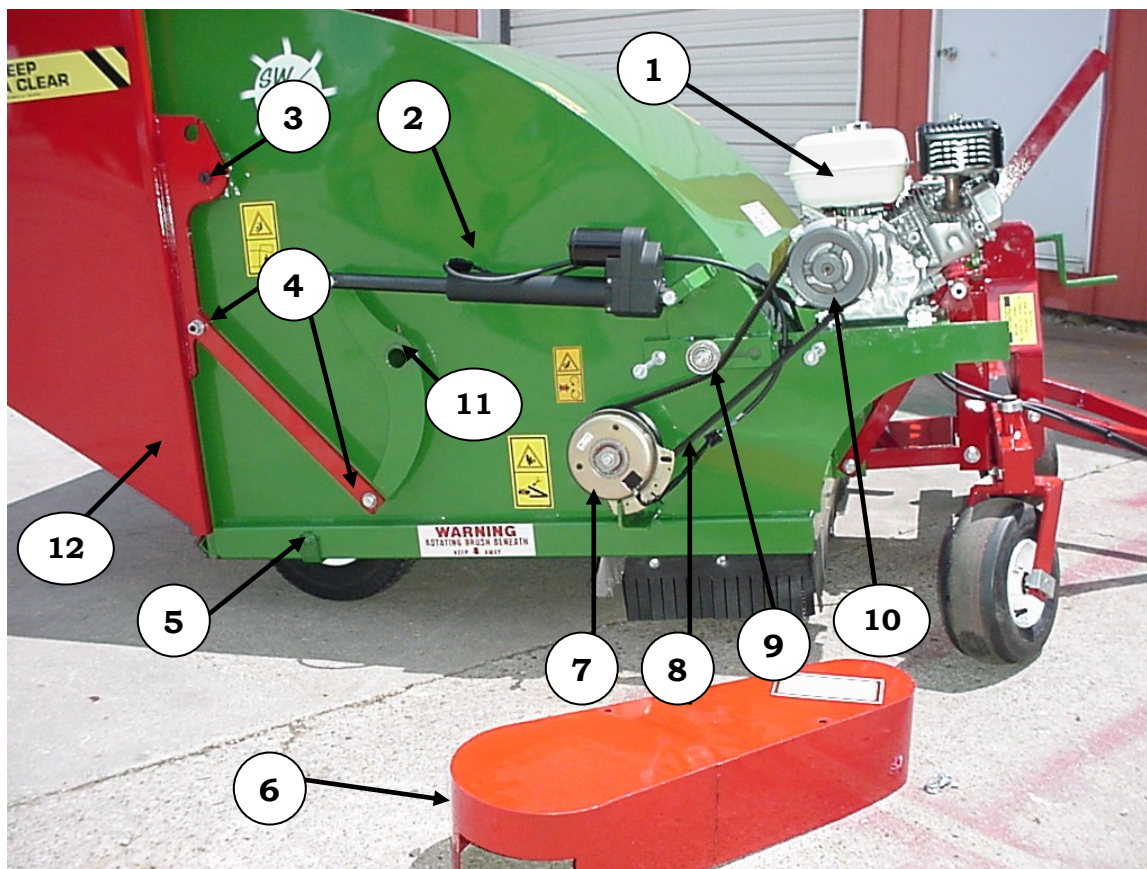
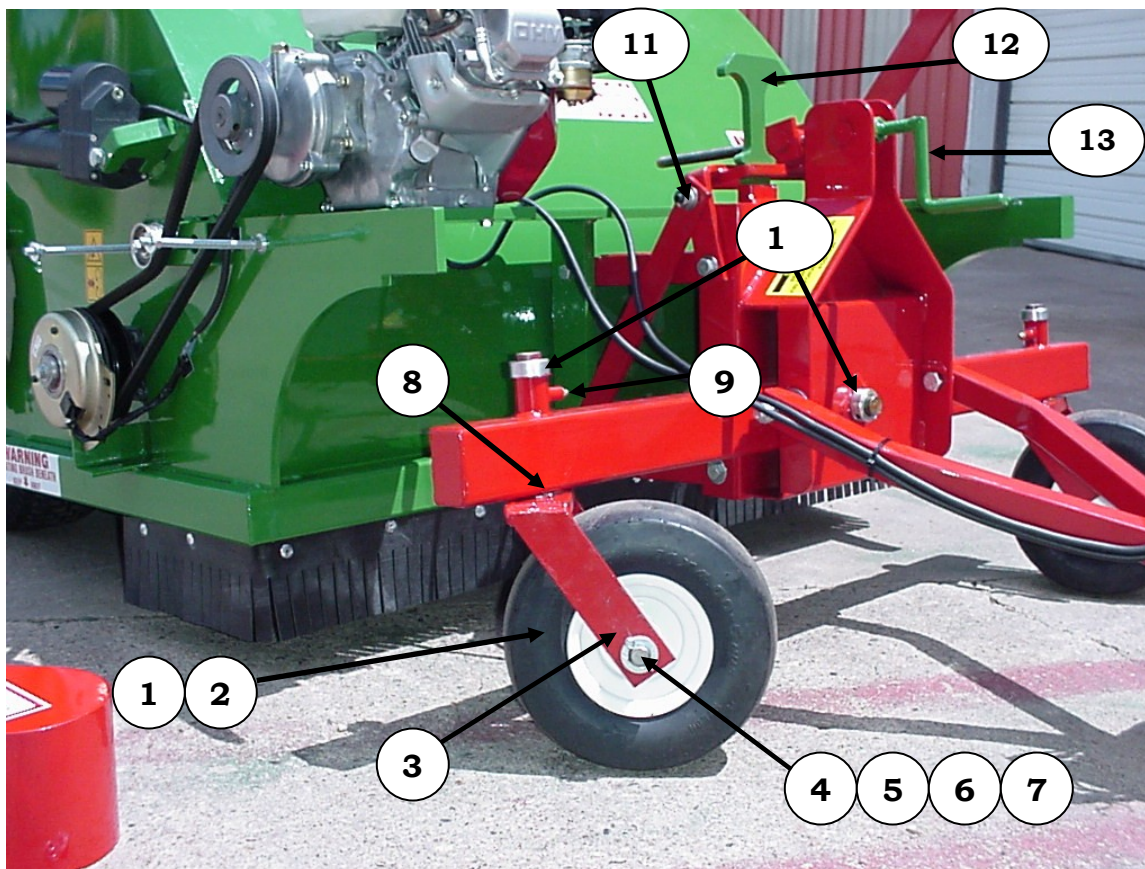


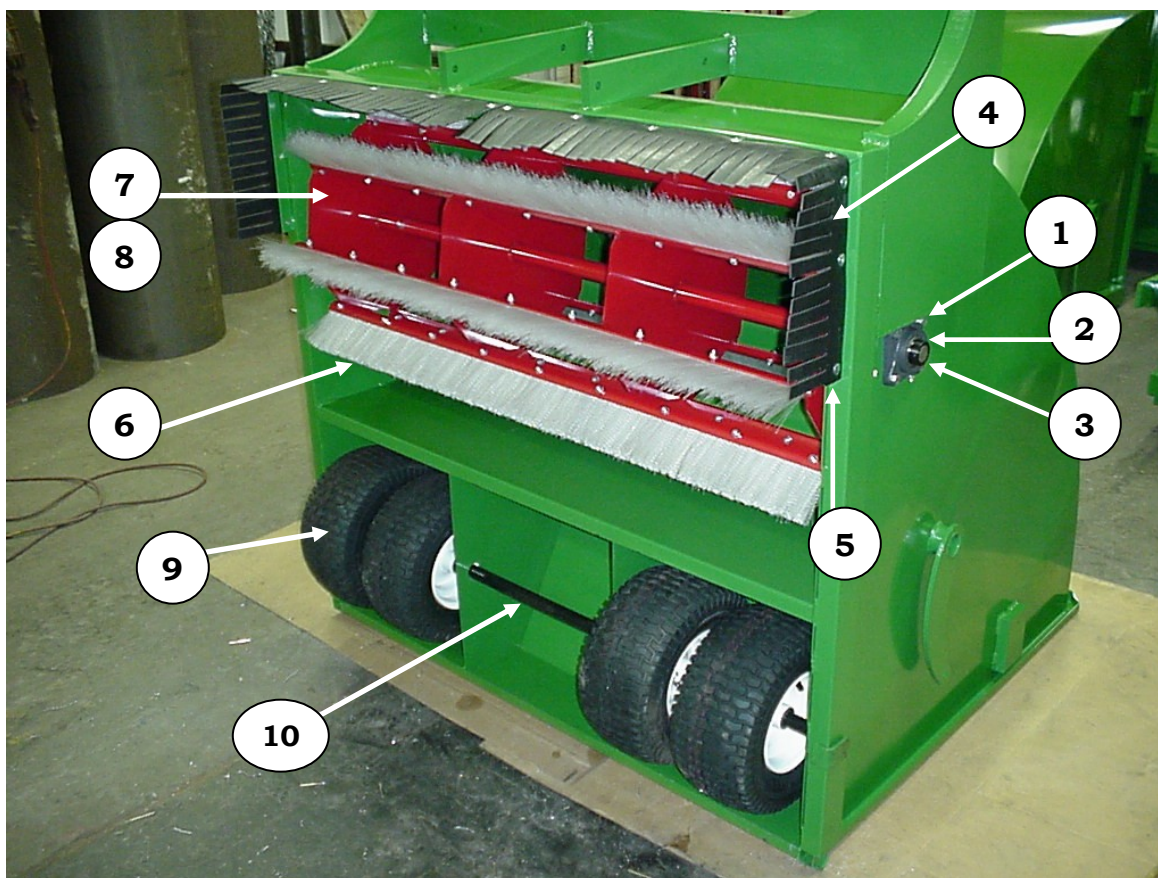
Figure 1



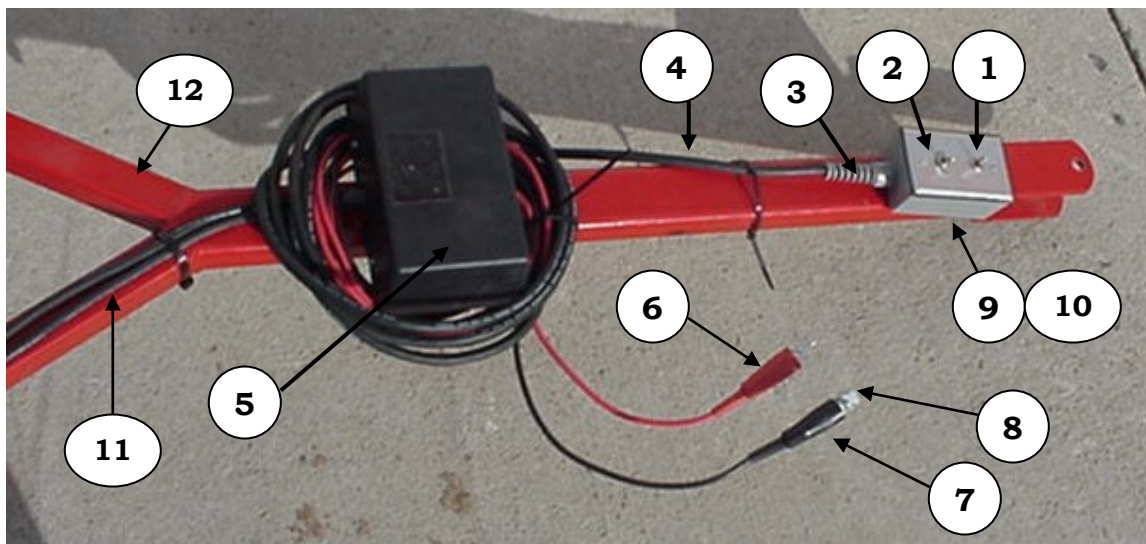
Ref#	Part#	Description	Qty
1	EP554100	Engine, 5.5hp Honda	1
2	BLK2XG20	Electric Actuator, 2000#	1
3	FN26367	Shoulder Screw, 1/2x1/2	2
4	TP6008	Step Bushing	4
5	TP6020	Rear Axle	1
6	SWSHIELD	Side Shield Assy.	1
7	TP6002	Electric Clutch	1
8	KABX52	BX52 Belt	1
9	TP7002	2" Belt Tensioner Idler 3/8" Bore	1
10	ACBK52x3/4	Sheave, 5" x 3/4" Bore	1
11	*Call	Grease Fitting	2
12	SWHOPPER	Hopper	1

Figure 2

Ref#	Part#	Description	Qty
1	TP6009	Tire Assy, 11x4.0-5 Smooth	2
2	TP6014	Replacement Bearing for TP6009	2
3	SWCASTER	Caster Frame for Front Tire Assy.	2
4	TP4017	Axle, Zinc Plated	2
5	TOSC12	Set Collar, 3/4"	4
6	FN33018	Flat Washer	2
7	FN65126	Cotter Pin, 3/16x1-3/4	2
8	MC5906K524	Thrust Washer, Bronze	2
9	*Call	Grease Fitting,	2
10	TOSC-100	Set Collar, 1"	3
11	TP6008	Step Bushing	16
12	TP6439	Height Adjustment Transport Pin	1
13	TP6024	Height Adjustment Screw	1

Figure 3

Ref. #	Part#	Description	Qty
1	IPF205	4-Bolt Flange Housing	2
2	IPSA205-16G	1" Bearing Insert	2
3	TP6022	Shaft, Sweeper Assy.	1
4	AC35M552999	Rubber Apron Belt	2
5	FN41132	3/16 Steel Rivet	14
6	IBA-4457	Brush, 48" White (Stiff)	8
	IBA-4450	Brush, 48" Black (Medium)	8
7	TP6021	Brush Frame Assy.	1
8	TP6023	Brush Frame Clamp Strip	8
9	TP6001	Turf Tire/Wheel Assy. 13/6.50x6 2-Ply	4
10	TP6020	Rear Axle	1

Figure 4

Ref#	Part#	Description	Qty
1	TP6004	Toggle Switch, Up-Dn SPDT	1
2	TP6003	Toggle Switch, Clutch On-Off SPST	1
3	TP6007	Cord Connector	2
4	WA189102767	16/4 Type SJ Service Cord	12
5	TP4001A	Solenoid Type Up-Down Control	1
*	SW90-31079	Replacement Cover Only for Solenoid Box	1
6	MC7236K181	Insulator Sleeve Red	1
7	MC7236K182	Insulator Sleeve Black	1
8	MC7236K13	Alligator Clip	2
9	TP6005	Electric Box, Wet Location	1
10	TP6006	Weather Tight Cover	1
11	WA189101361	14/2 Type SJ Service Cord	13
12	SWHITCH	Drawbar Hitch Assy.	1

Safety Decals



#1



#2



#3



#4



#5



#6



#7



#8



#9



#10



#11



#12



#13

Ref#	Part#	Description	Qty
1	TP6010	Caution, Before Towing Decal	1
2	SP106	Warning, Rotating Brush Decal	1
3	QS3018	Caution, Do Not Reach Decal	1
4	QS66	No Riders Decal	1
5	TP6012	Recom. Brush Adjust. Decal	1
6	TP6013	Do Not Remove Cover Decal	1
7	GPDNO	T.I.P. Do Not Operate Decal	1
8	IM449-460	Decal, Stop Power Before Servicing	1
9	IM452-315	Decal, Read Operator's Manual	1
10	IM449-307	Decal, Do Not Place Hand Into Belt	1
11	IM449-287	Decal, Keep Hitch Area Clear	2
12	IM447-417	Decal, Caution- Pinch Point	3
13	IM449-294	Decal, Keep Clear Of Hopper	2

Other Parts



#1



#2



#3

Ref#	Part#	Description	Qty
1	SAWT9	Keep Area Clear – Decal	2
2	SPSW-48	SW-48 Sweep-N-Clean Decal	1
3	SPSW-48R	SW-48 Round Decal	2

MAIL THIS WARRANTY CARD TODAY

IF IT IS NOT REGISTERED IN THE HOME OFFICE OF
T.I.P. INC.

CUSTER, WI 54423

ANY CLAIM YOU HAVE UNDER THE WARRANTY
WILL NOT BE HONORED....

DON'T DELAY

PLEASE COMPLETE THE WARRANTY REGISTRATION
AND
RETURN IMMEDIATELY.

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1619 COUNTY K

CUSTER, WI 54423

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WARRANTY REGISTRATION

NAME: _____

ADDRESS: _____

CITY/STATE/ZIP CODE: _____

DEALER'S NAME: _____

DEALERS ADDRESS: _____

CITY/STATE/ZIP CODE: _____

DATE OF PURCHASE: _____

S/N _____

MODEL# _____

I HAVE READ AND FULLY UNDERSTAND ALL
SAFETY DIRECTIONS AND AGREE TO TRAIN ALL PERSONNEL
OPERATING THIS MACHINE.

SIGNATURE: _____

DATE: _____