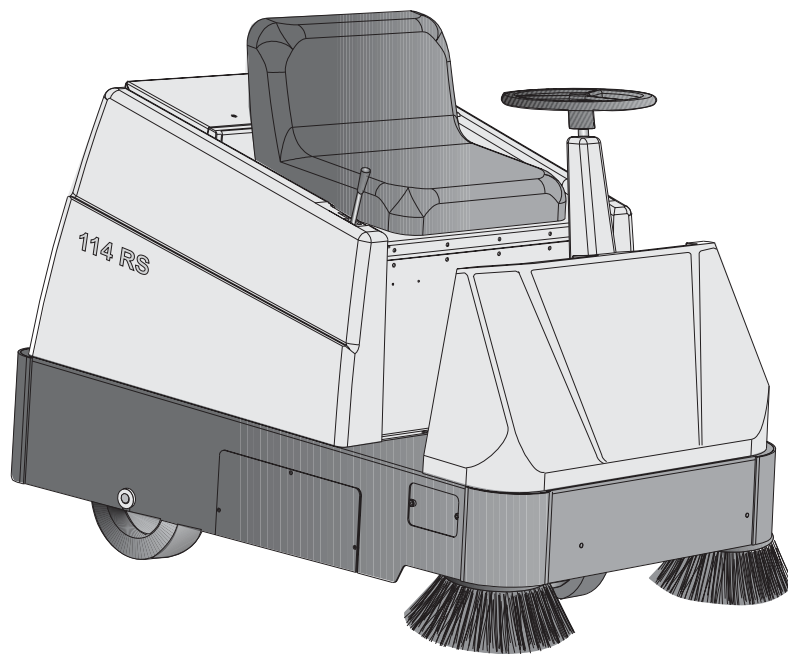




AMERICAN-LINCOLN TECHNOLOGY

Operator's Manual



114RS
SWEEPER

Beginning with
Serial No. 350661

READ THIS BOOK!

This book has important information for the use and safe operation of this machine. Failure to read this book prior to operating or attempting any service or maintenance procedure to your machine could result in injury to you or to other personnel; damage to the machine or to other property could occur as well. You must have training in the operation of this machine before using it. If you or your operator (s) cannot read English, have this manual explained fully before attempting to operate this machine.

Si Ud. o sus operadores no pueden leer el Inglés, se hacen explicar este manual completamente antes de tratar el manejo o servicio de esta máquina.

All directions given in this book are as seen from the operator's position at the rear of the machine.

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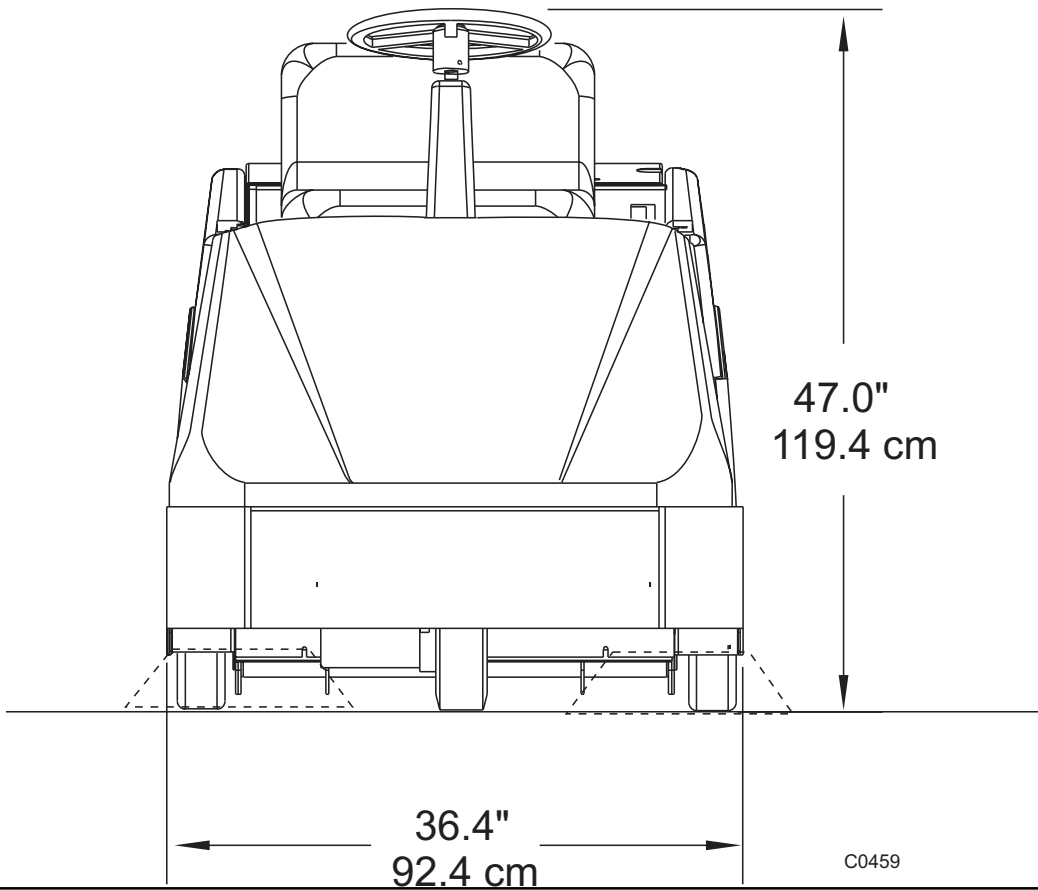
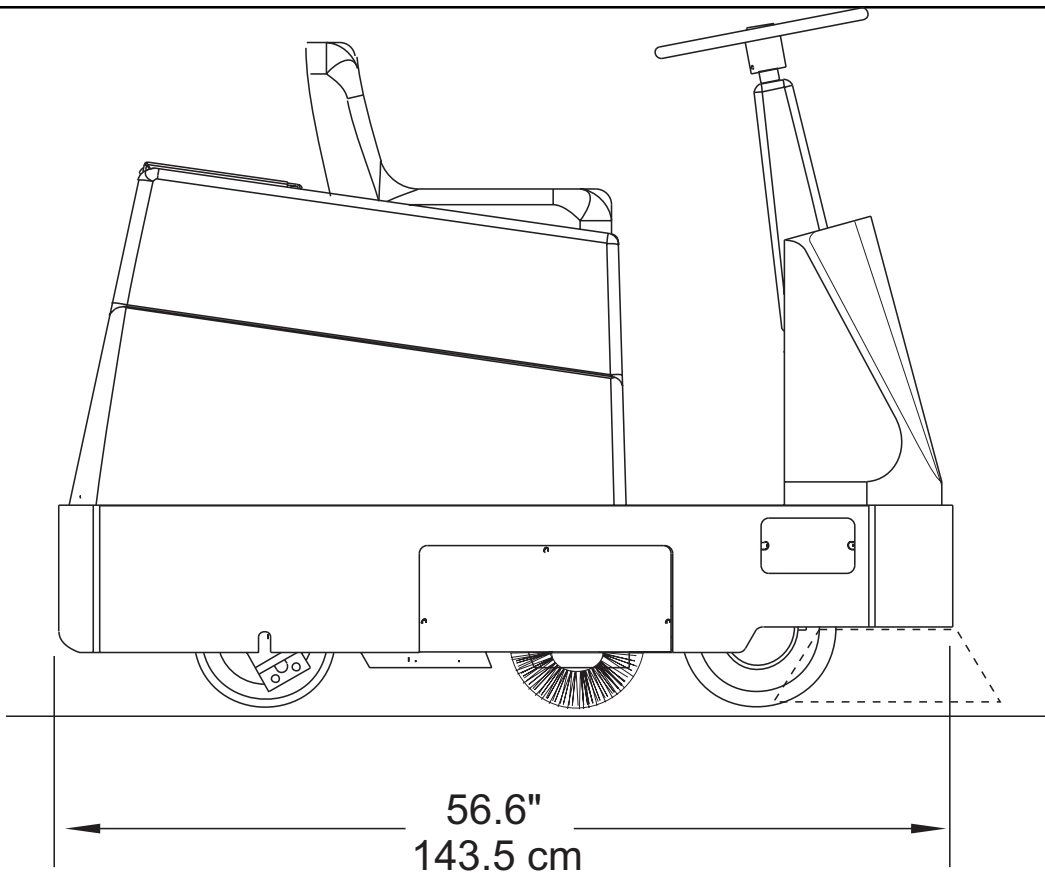
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MACHINE DIMENSIONS



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MACHINE SPECIFICATIONS

GENERAL MACHINE SPECIFICATIONS

SWEEPING PATH

Width 45.0 inches 114.3 cm. Including side brooms

TRAVEL SPEED

Forward 4.0 MPH/4.9 KPH
Reverse 2.0 MPH/2.48 KPH

TURNING RADIUS

Right 46.0 inches 116.8 cm.
Left 46.0 inches 116.8 cm.
U-turn Clearance 68.00 inches 172.7 cm.

DIMENSIONS

Length 56.6 inches 143.5 cm.
Width 36.4 inches 92.4 cm.
Height 47.0 inches 119.4 cm.

WEIGHT

Standard Machine 686 LBS .311 KGS (Without Batteries)
With 228 A.H. Batteries 1071 LBS.486 KGS
With 330 A.H. Batteries 1221 LBS.554 KGS

TIRES

Type Gray Non-Marking
Rear 3.0" wide x 10.0" dia. (7.6cm x 25.4cm) Foam Filled
Front 2.75" wide x 10.0" dia. (7.0 cm x 25.4 cm) Solid

BATTERIES

Two 36 VDC Battery Package Options
228 A.H. Qty. 3 - 12 VDC Lead Acid Batteries Total Wt. 384 lb/175 kg
330 A.H. Qty. 6 - 6 VDC Lead Acid Batteries Total Wt. 535 lb/243 kg

DRIVES

Main Broom (1) 0.50 HP 36 VDC Electric Motor (372 W.)
Side Brooms (2) 0.13 HP 36 VDC Electric Motor (96.8 W.)

BRAKING

For Operation Dynamic braking to front wheel, using foot pedal.
For Storage or Service Hand operated control to engage two rear wheel lock pins.

STEERING

System Type Single front wheel with chain and sprocket column
Steering Wheel Diameter 13 inches (33.02 cm)
Steering Angle of Front Wheel 180 degrees Available

LUBRICATION

Rear Wheels Grease Fittings Provided
Steering Gear Grease Fittings Provided

WHEEL DRIVE SYSTEM

Type Front Wheel, Reversible Electric Coaxial Gear Motor
Rating 36 VDC .70 HP (500 W.)

SWEEPING SYSTEM SPECIFICATIONS**MAIN BROOM**

Broom bristle mounted in a polycore tube with helical pattern bristle tufted in six double rows.

Length	27.00 inches (68.6 cm)
Broom Size	11.00 inches (27.9 cm) Dia.
Broom bristle Length	3.00 inches (7.6 cm) long. (Usable to 1 Inch Length)

SIDE BROOMS

Polypropylene bristles mounted in a 1.25-inch (3.17-cm) thick marine grade varnished hardwood plate.

Broom Size	16 inches (40.6 cm) Dia.
------------	--------------------------

HOPPER

Equipped with dolly wheels and handle.

Volumetric Capacity	3.0 cubic feet (85.0 lt)
Weight Capacity	375 lbs. (170 kg).

FILTRATION

One pleated treated paper type panel air filter.

Filtering area	40 square feet (3.7 m2)
----------------	-------------------------

VACUUM FAN

Electric motor is driving a radial impeller.

Motor	36VDC .62 HP (462W)
Impeller	9 inches (22.9 cm) Diameter

CONTROLS AND INSTRUMENTS

- Side Broom "Off" Switch
- Vac Fan "Off" Switch
- Push Button Filter Shaker
- Push Button Horn
- Control Handle for Main Broom Lift and Sweeping Settings. (Also turns off main broom, side brooms and vacuum impeller)
- Control Handle for Side Broom Lift
- Key Start Switch
- Single Pedal Control for Forward/Reverse Motion, Rate of Travel and Braking.
- Hour Meter
- Battery Condition Meter

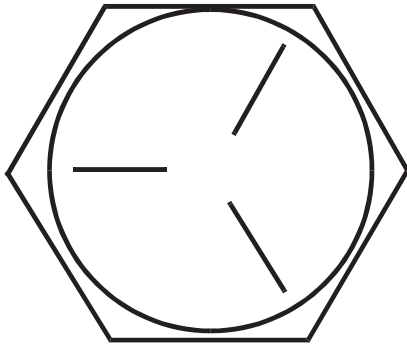
OPTIONAL EQUIPMENT

- Strobe Light
- Back-up Alarm
- Low Battery Shutdown
- Emergency Stop
- Smart Battery Charger Option
- Head, Tail Lights
- Over Head Guard

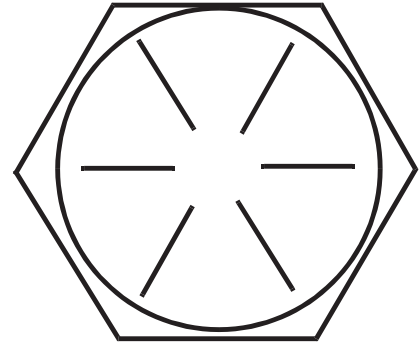
MAIN BROOM OPTIONS

- Nylon low density
- Nylon high density
- Proex

BOLT IDENTIFICATION



SAE - Grade 5



SAE - Grade 8

Screw Size	Grade 5 Plated		Grade 8 Plated		410H Stainless		Brass	Type F & T & BT		Type B, AB
	C	F	C	F	C	F		C	F	
*6	14	15	-	-	18	20	5	20	23	21
*8	27	28	-	-	33	35	9	37	41	34
*10	39	43	-	-	47	54	13	49	64	49
*1/4	86	108	130	151	114	132	32	120	156	120
5/16	15	17	22	24	19	22	6	-	-	-
3/8	28	31	40	44	34	39	10	-	-	-
7/16	44	49	63	70	55	62	16	-	-	-
1/2	68	76	95	108	85	95	-	-	-	-
9/16	98	110	138	155	-	-	-	-	-	-
5/8	135	153	191	216	-	-	-	-	-	-
3/4	239	267	338	378	-	-	-	-	-	-
7/8	387	-	545	-	-	-	-	-	-	-
1	579	-	818	-	-	-	-	-	-	-

C = Coarse Thread

F = Fine Thread

* = Torque values for #6 through 1/4 are lb./in. All others are lb./ft.

NOTE

Decrease the torque by 20% when using thread lubricant
The torque tolerance is \pm on torque values.

+

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DECIMAL METRIC CONVERSION TABLE

FRACTION	DECIMAL	MILLIMETER	FRACTION	DECIMAL	MILLIMETER
$\frac{1}{64}$	0.015625	0.3969	$\frac{33}{64}$	0.515625	13.0969
$\frac{1}{32}$	0.03125	0.7938	$\frac{17}{32}$	0.53125	13.4938
$\frac{3}{64}$	0.046875	1.1906	$\frac{35}{64}$	0.546875	13.8906
$\frac{1}{16}$	0.0625	1.5875	$\frac{9}{16}$	0.5625	14.2875
$\frac{5}{64}$	0.078125	1.9844	$\frac{37}{64}$	0.578125	14.6844
$\frac{3}{32}$	0.09375	2.3813	$\frac{19}{32}$	0.59375	15.0813
$\frac{7}{64}$	0.109375	2.7781	$\frac{39}{64}$	0.609375	15.4781
$\frac{1}{8}$	0.125	3.1750	$\frac{5}{8}$	0.625	15.8750
$\frac{9}{64}$	0.140625	3.5719	$\frac{41}{64}$	0.640625	16.2719
$\frac{5}{32}$	0.15625	3.9688	$\frac{21}{32}$	0.65625	16.6688
$\frac{11}{64}$	0.171875	4.3656	$\frac{43}{64}$	0.671875	17.0656
$\frac{3}{16}$	0.1875	4.7625	$\frac{11}{16}$	0.6875	17.4625
$\frac{13}{64}$	0.203125	5.1594	$\frac{45}{64}$	0.703125	17.8594
$\frac{7}{32}$	0.21875	5.5563	$\frac{23}{32}$	0.71875	18.2563
$\frac{15}{64}$	0.234375	5.9531	$\frac{47}{64}$	0.734375	18.6531
$\frac{1}{4}$	0.25	6.3500	$\frac{3}{4}$	0.75	19.0500
$\frac{17}{64}$	0.265625	6.7469	$\frac{49}{64}$	0.765625	19.4469
$\frac{9}{32}$	0.28125	7.1438	$\frac{25}{32}$	0.78125	19.8438
$\frac{19}{64}$	0.296875	7.5406	$\frac{51}{64}$	0.796875	20.2406
$\frac{5}{16}$	0.3125	7.9375	$\frac{13}{16}$	0.8125	20.6375
$\frac{21}{64}$	0.328125	8.3344	$\frac{53}{64}$	0.828125	21.0344
$\frac{11}{32}$	0.34375	8.7313	$\frac{27}{32}$	0.84375	21.4313
$\frac{23}{64}$	0.359375	9.1281	$\frac{55}{64}$	0.859375	21.8281
$\frac{3}{8}$	0.375	9.5250	$\frac{7}{8}$	0.875	22.2250
$\frac{25}{64}$	0.390625	9.9219	$\frac{57}{64}$	0.890625	22.6219
$\frac{13}{32}$	0.40625	10.3188	$\frac{29}{32}$	0.90625	23.0188
$\frac{27}{64}$	0.421875	10.7156	$\frac{59}{64}$	0.921875	23.4156
$\frac{7}{16}$	0.4375	11.1125	$\frac{15}{16}$	0.9375	23.8125
$\frac{29}{64}$	0.453125	11.5094	$\frac{61}{64}$	0.953125	24.2094
$\frac{15}{32}$	0.46875	11.9063	$\frac{31}{32}$	0.96875	24.6063
$\frac{31}{64}$	0.484375	12.3031	$\frac{63}{64}$	0.984375	25.0031
$\frac{1}{2}$	0.5	12.7000	1	1.0000	25.4000

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SAFETY PRECAUTIONS

THE FOLLOWING STATEMENTS ARE USED THROUGHOUT THIS MANUAL AS INDICATED IN THEIR DESCRIPTIONS:

 **DANGER**

To warn of immediate hazards which will result in severe personal injury or death.

 **WARNING**

To warn of hazards or unsafe practices which could result in severe personal injury or death.

 **CAUTION**

To warn of hazards or unsafe practices which could result in minor personal injury.

ATTENTION

To warn of unsafe practices which could result in extensive equipment damage.

NOTE

To give important information or to warn of unsafe practices which could result in equipment damage.

THE FOLLOWING INFORMATION SIGNALS POTENTIALLY DANGEROUS CONDITIONS TO THE OPERATOR OR EQUIPMENT. READ THIS MANUAL CAREFULLY. KNOW WHEN THESE CONDITIONS CAN EXIST. THEN, TAKE NECESSARY STEPS TO TRAIN MACHINE OPERATING PERSONNEL.

FOR THE SAFE OPERATION OF THIS MACHINE, READ AND UNDERSTAND ALL WARNINGS, CAUTIONS, AND NOTES.

 **WARNING**

Machines can ignite flammable materials and vapors. Do not use with or near flammables such as: gasoline, grain dust, solvents, and thinners.

 **WARNING**

Heavy machinery. Improper use can cause personal injury.

 **WARNING**

Operate only when lids, doors, and access panels are securely closed.

 **WARNING**

Use care when reversing machine in confined area.

 **WARNING**

When servicing the machine, disconnect the batteries first to prevent possible injury.

 **WARNING**

When working on the machine, empty hopper, remove batteries, clear area of people and obstructions, and use additional people and proper procedures when lifting the machine.

 **WARNING**

Always empty the Hopper and Disconnect Battery before doing maintenance.

 **WARNING**

You must have training in the operation of this machine before using it. READ THE INSTRUCTION BOOK.

 **WARNING**

Do not operate this machine unless it is completely assembled.

 **WARNING**

Do not use this machine as a step or furniture.

SAFETY PRECAUTIONS

 **WARNING**

Be careful when operating the machine on a ramp or incline. Always move slowly on a ramp. Do not turn this machine on a ramp. Do not stop and leave this machine on a ramp.

 **WARNING**

Stop and leave this machine on a level surface. When you stop the machine, put the power switch in the “OFF” position and engage the Wheel Lock.

 **WARNING**

To prevent injury, and damage to the machine, do not lift the machine or move it to an edge of a stair or loading dock.

 **WARNING**

Lead acid batteries generate gases, which can cause an explosion. Keep sparks and flames away from batteries. **NO SMOKING.** Charge batteries only in area with good ventilation.

 **WARNING**

Always wear eye protection and protective clothing when working near batteries. Remove all jewelry. Do not put tools or other metal objects across the battery terminals, or the tops of batteries.

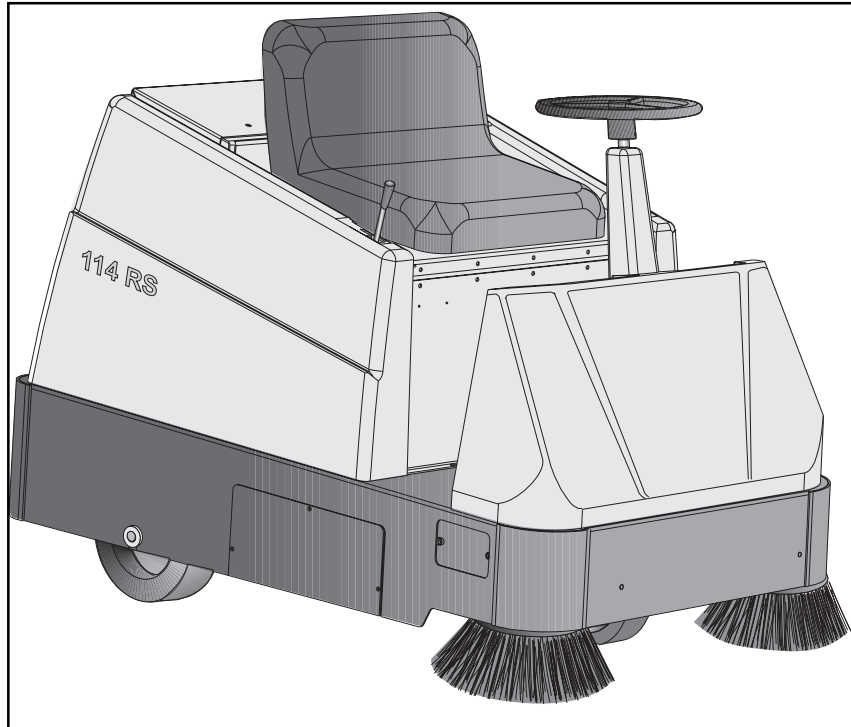
 **WARNING**

Maintenance and repairs must be done by authorized personnel only. Tighten all fasteners. Keep adjustments according to the specifications given in the service manual for the machine. Keep the electrical parts of the machine dry. For storage, keep the machine in a building.

 **WARNING**

Make sure that all labels, decals, warnings, cautions and instructions are fastened to the machine. Get new labels and decals from Clarke/American-Lincoln.

MACHINE PREPARATION



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FIGURE 1

YOUR 114 RS BATTERY MACHINE HAS BEEN SHIPPED COMPLETE, BUT DO NOT ATTEMPT TO OPERATE WITHOUT READING THE FOLLOWING INSTRUCTIONS.

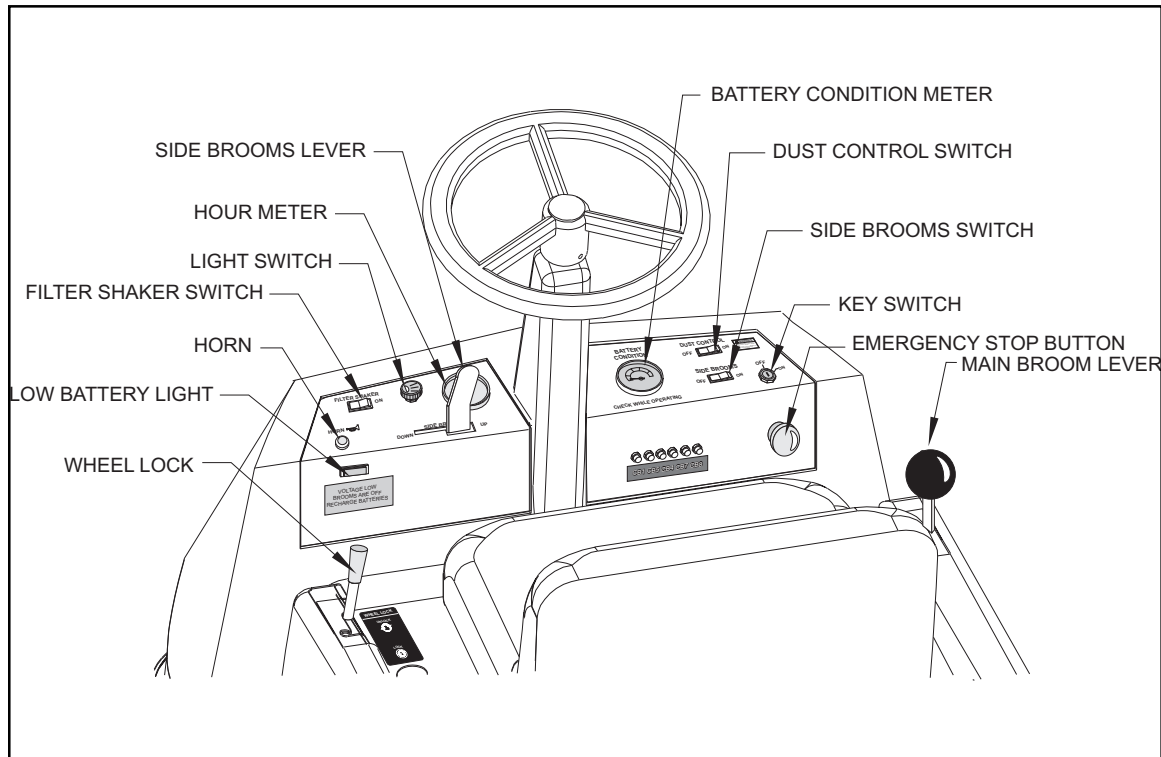
Uncrate the machine and remove all packing material. Inspect the machine for possible shipping damage. Install brooms, as outlined in the Service Instructions Section of this manual. Install batteries as follows (if not included):

1. Turn the key to the "OFF" position.
2. Unplug the polarized connector located next to the operator's seat.
3. Lift the battery compartment cover and engage the safety latch.
4. Use a battery-lifting device with a 150 lb. (68 KG) capacity to place the batteries in the battery compartment.
5. Install Battery Cables. (See Page 45 for detailed connection information)
6. Charge batteries (See battery charging procedure in the Service Instructions Section of this Manual)
7. Disengage battery cover safety latch and carefully lower cover.
8. Plug the polarized connector into the receptacle located next to the operator's seat.
9. READ THIS MANUAL before Attempting to Operate the Sweeper.



WARNING

Hydrogen gas is formed during the charging operation and is explosive! Only charge batteries in a well-ventilated area with the lid open. Avoid any open flame or electrical sparks. Pulling out the charger plug with the timer on will cause an arc and must be avoided.



C0461

FIGURE 2

KEY SWITCH - See Figure 2

The Key Switch turned to the right, the “ON” position, will provide power to all Sweeper systems.

HORN BUTTON - See Figure 2

The horn button is active only when the key switch is “on”. Push the horn button to sound the horn.

HOURLY METER - See Figure 2

The hour meter is activated when the key switch is in the “On” position. The meter indicates the time, in Hours that the machine has been operated. This is useful for determining service intervals.

LIGHT SWITCH - See Figure 2

The Light Switch is a push-pull type switch that turns on the Front and Rear Lights. Pull the switch “out” to turn on the Lights. Push the switch “in” to turn off the Lights. The Lights are not controlled by the key switch and can be turned on regardless of the key switch position.

SEAT ADJUSTMENT

This lever is located on the right of the seat. This lever allows the seat to be adjusted forward or back when the lever is moved.

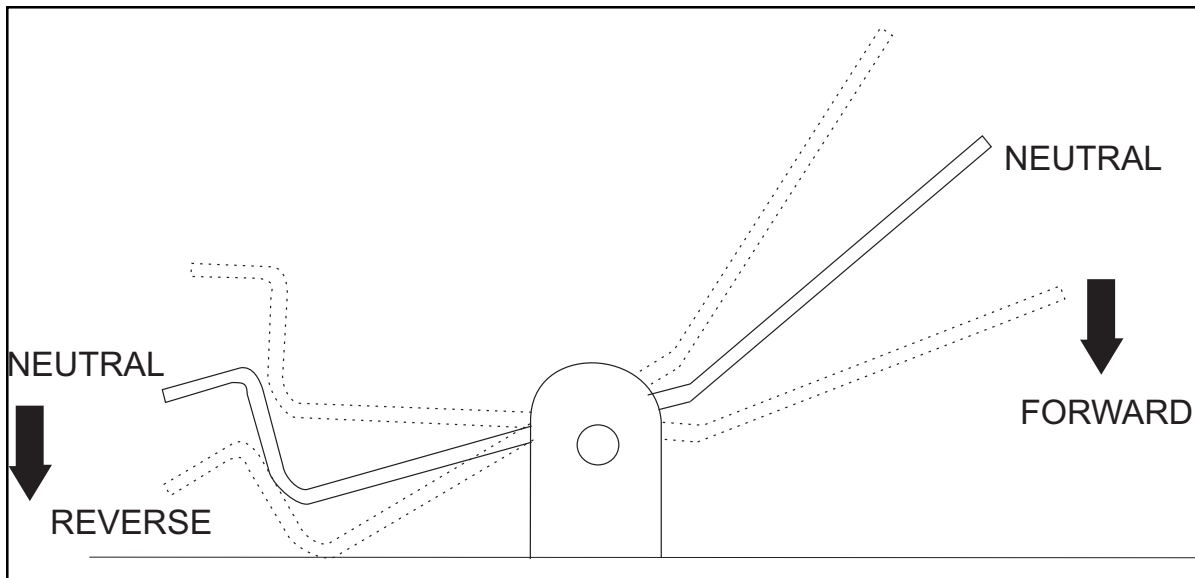
FILTER SHAKER SWITCH - See Figure 2

The filter shaker switch is a momentary on rocker type switch that when depressed and held shakes accumulated debris from the dust control filter. Press and hold the switch for 15 seconds to clear the filter. The filter should be cleared periodically while sweeping and prior to emptying the hopper.

SIDE BROOMS LIFT LEVER - See Figure 2

The Side Brooms Lift Lever is a two-position control that allows for Lifting or Lowering of the Side Brooms. Placing the lever to the left lowers the Side Brooms. Placing the lever to the right into the indent raises the Brooms.

MACHINE CONTROLS



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FIGURE 3

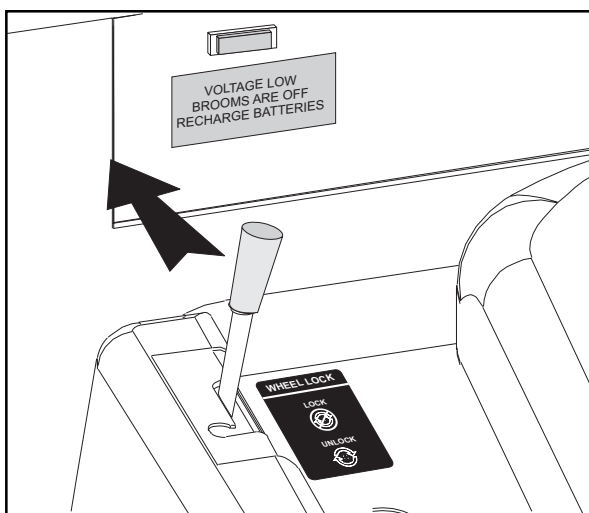
FOOT PEDAL-See Figure 3

The accelerator and directional control foot pedal is located on the floor of the operator's area. The accelerator and directional control pedal controls the machine direction, travel speed and dynamic braking. If the machine stops due to an electrical system overload in the power panel controller, allow the pedal to return to the neutral position. Reset is automatic when the controller cools.

For Forward Travel - Foot pressure on the upper portion of the pedal will cause the Sweeper to move forward. Increase the foot pressure on the upper portion of the pedal to increase the forward speed.

For Reverse Travel - Put foot pressure on the lower portion of the pedal. The machine will move in reverse. Increase the foot pressure on the lower portion of the pedal to increase the reverse speed.

To Stop the Sweeper - Allow directional control pedal to return to neutral (center position). Pedal will automatically return to centered position, which will automatically provide dynamic braking to stop. If Increased Braking action is desired put light foot pressure to the pedal in the opposite direction of travel until the sweeper stops then allow the pedal to return to center.



C0466

FIGURE 4

WHEEL LOCK - See Figure 4

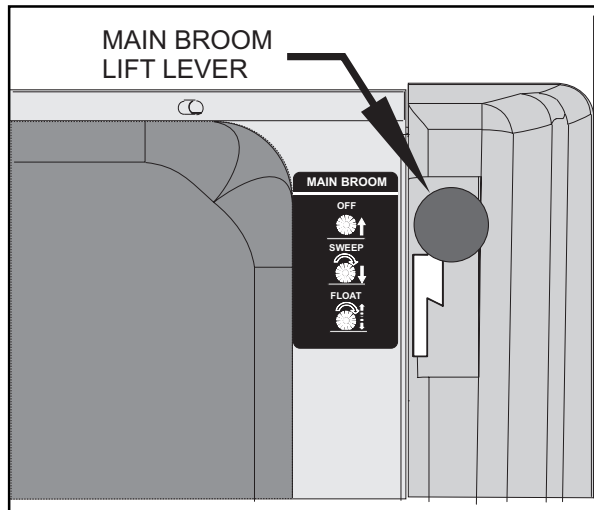
The Wheel Lock is used to prevent unexpected movement of the machine while it is "Parked" for Storage purposes or being serviced, such as emptying the hopper. The Wheel Lock is not to be used as a "Brake." To engage the wheel lock, Stop the Sweeper, move the lever out of the indent, and push it forward. The wheel lock will engage with the lever in the forward position.

WARNING

The Wheel Lock is not to be used as a "Brake." Make sure the sweeper has come to a complete stop before engaging the wheel lock. Personal Injury or Property Damage Can Result From Using the Wheel Lock as a "Brake."

WARNING

Turn the Key Switch "Off" and engage the Wheel Lock before Leaving the Operator's Compartment. Do Not Leave the Sweeper Unattended.



C0467 FIGURE 5

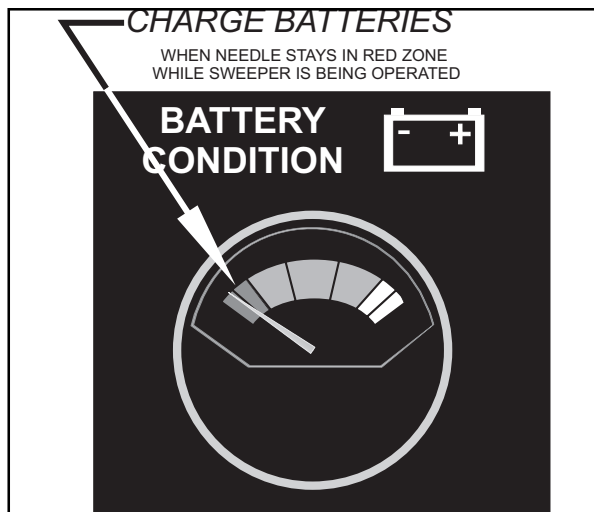
MAIN BROOM LIFT LEVER - See Figure 5

The main broom lift lever is located on the right side next to the driver's seat. To lower the main broom, grasp the lever, move it to the left to clear the locking notch and pull back to the first or second notch. The first notch is the "Sweep" position, which is used for normal sweeping conditions, and will result in longer broom life. The second notch is the "Float" position and is used when sweeping very uneven surfaces. The main broom, side brooms and vacuum fan will start when the lever is moved from the "Off" position.

SIDE BROOMS SWITCH - See Figure 2

The Side Brooms Switch is a two-position rocker type On/Off Switch. Depress the right side of the switch to turn the side brooms on.

Depress the left side of the switch to turn the side brooms off. The side brooms will rotate when the Main Broom Lever is placed in the Sweep or Float Position.



C0468 FIGURE 6

BATTERY CONDITION METER - See Figure 6

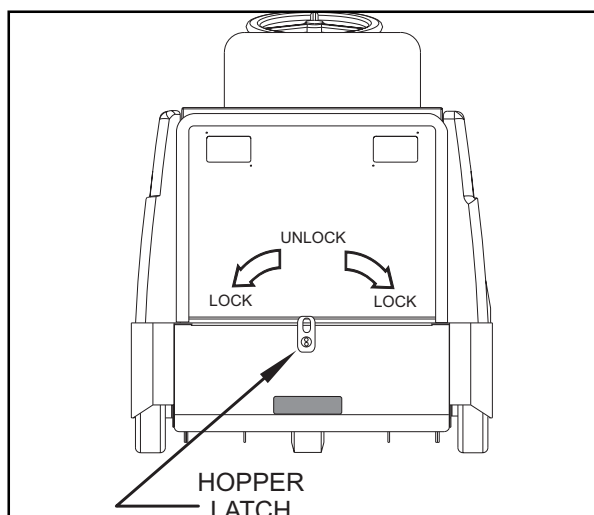
The meter shows the condition of the battery, while the machine is running, under load. Batteries are charged when indicator is in the green zone. When indicator stays in the red zone, batteries must be charged.

LOW BATTERY LIGHT (OPTION) - See Figure 2

The Low Battery Shutdown prevents excessive discharging of the batteries. When the batteries get low the indicator light comes on and the Brooms turn off. When the indicator light, illuminates Charge the batteries.

DUST CONTROL SWITCH - See Figure 2

The dust control switch is a two-position rocker switch located on the right instrument panel and is used to control operation of the vacuum fan for the dust control system. To turn on the vacuum fan, push the right side of the rocker switch. To turn off the vacuum fan push the left side of the rocker switch. The vacuum fan will only operate when the main broom lever is moved out of the "Off" position.



C0469 FIGURE 7

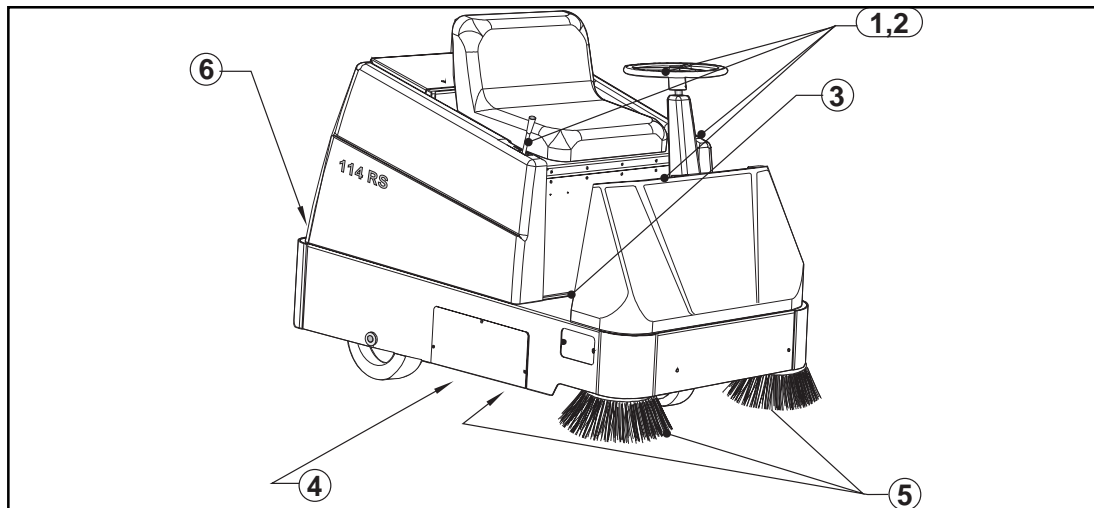
HOPPER RELEASE LATCH - See Figure 7

The Hopper Release Latch is located on the Hopper at the rear of the sweeper. To disengage the latch, turn the handle to the left to the nine O'clock positions. The Hopper is now ready to be removed. To engage the Hopper latch, ensure the hopper is properly seated and turn the handle to the right to the three O'clock position. You will feel the latch engage if the hopper is properly seated.

EMERGENCY STOP BUTTON (OPTION) - See Figure 2

The emergency stop button is a Red Mushroom switch, which is located near the key switch. To quickly shut down power to the machine, push the large red button. To reset the shut down button; first turn the red button clockwise in the direction of the arrows marked on the switch. Now turn the key switch to the "Off" position then clockwise to the "start" position, when you release the key switch and allow it to return to the "On" position the Sweeper will operate.

OPERATING INSTRUCTIONS



C0470

FIGURE 8

NOTE

Before starting, perform the pre-start checks.

PRE-START CHECKLIST - See Figure 8

1. Check controls for proper operation
2. Make sure all controls are in the "Off" position
3. Be sure accelerator / directional control pedal is in the neutral position.
4. Check all Dust flaps for damage or wear.
5. Check Main Broom and Side Broom for proper broom pattern.
6. Ensure that the hopper latch is properly engaged.

TO START MACHINE

1. Release the Wheel Lock.
2. Turn key to "On" position.

POST START CHECKLIST

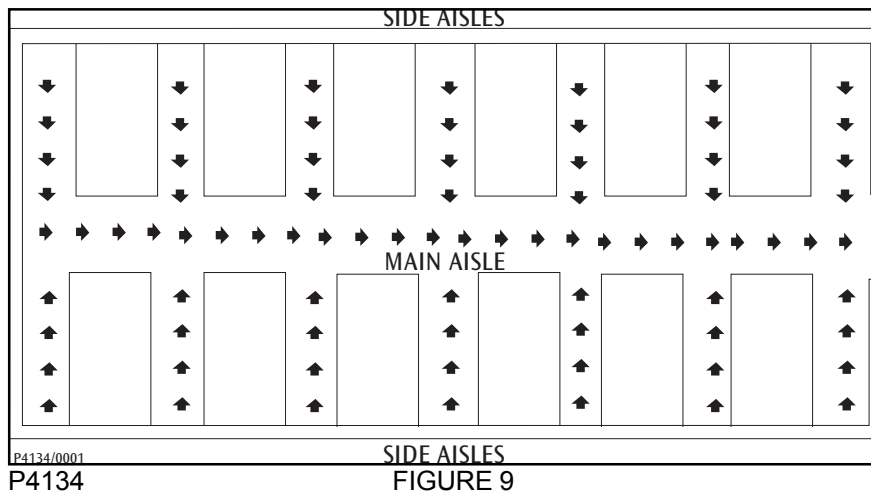
1. Check the Battery Condition Meter for sufficient battery charge. This must be done with the machine running.

TO TRANSPORT MACHINE

1. Be sure the Main Broom and Side Broom Controls are in the "UP" or "OFF" position with all other controls in the "OFF" position.
2. Push forward on the directional control pedal to place the machine in motion.
3. Vary your foot pressure on the directional control pedal to obtain desired travel speed.
4. To stop, allow directional control pedal to return to neutral (centered) position. (Pedal will automatically return to neutral when foot pressure is released).

TO BEGIN SWEEPING

1. Lower the Side Brooms by Moving the Side Broom Lift Lever to the "Down" Position.
2. Turn on the Side Brooms by setting the side brooms switch to the "On" Position.
3. Turn on the Dust control system by setting the Dust Control Switch to the "On" position.
4. Move the broom lift lever to the "Sweep" or "Float" position.
5. Vary your foot pressure on the directional control pedal to obtain desired travel speed.
6. To stop, allow directional control pedal to return to neutral (centered) position. (Pedal will automatically return to neutral when foot pressure is released).



HELPFUL HINTS FOR SWEEPING - See Figure 9

Here are some suggestions to keep in mind while sweeping.

1. Plan your sweeping in advance. Try to arrange long runs with minimum stopping and starting.
2. Pick up large debris before sweeping with the Machine.
3. Use the sweeper to sweep debris from side aisles into the main aisle.
4. After the Sweeper has made a sweeping run, turn off the dust control switch and use the filter shaker, Push and hold the shaker switch for approximately 15 seconds
5. Allow a few inches of overlap of sweep paths. This will eliminate leaving dirty patches.
6. Sweep in straight paths and do not bump posts or scrape the sides of the machine.
7. Periodically turn the sweeping broom end for end to prevent the bristles from "setting" in one direction.
8. Do not turn steering wheel too sharply when machine is in motion. The machine is very responsive to movement of the steering wheel - so avoid sudden turns.
9. As the Hopper becomes full, the sweeper will start to leave debris on the floor. When this occurs stop sweeping and empty the hopper.

TO EMPTY THE HOPPER

1. Place the Main Broom Lever in the "Off" position, raise Side Brooms, and proceed to the disposal site for emptying the Hopper.
2. Stop the Sweeper, Turn off the dust control switch and shake the filter for 15 seconds.
3. Place all controls in the "Off" position and engage the wheel Lock.
4. Proceed to the rear of the Sweeper and unlock the Hopper latch.
5. Grasp the Hopper Handle and remove the hopper.
6. Dump the Hopper. Get Help if needed.
7. Position the Hopper and install it making sure that the Hopper goes in squarely.
8. Lock the Hopper Latch.
9. Resume Sweeping or perform the Post Operation Checklist if finished Sweeping.

TO STOP THE SWEEPING OPERATION

When the sweeping has been completed follow these instructions.

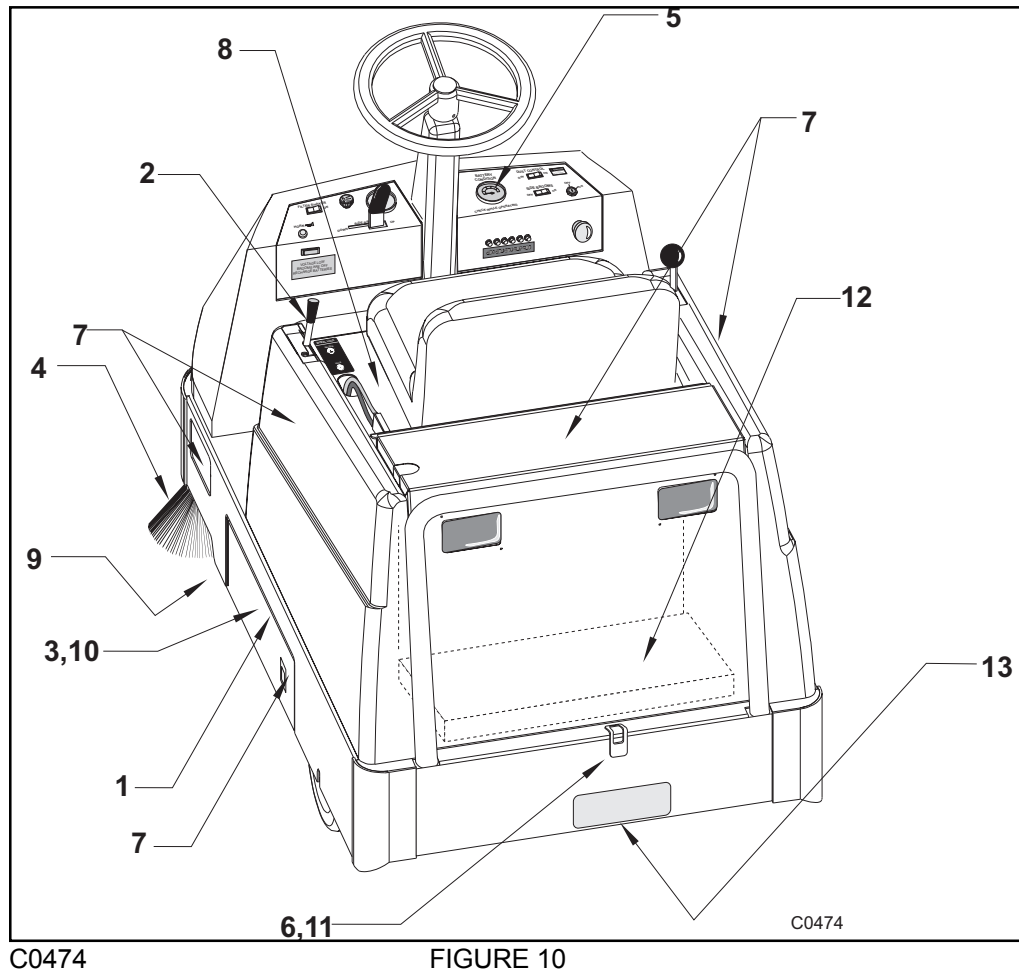
NOTE

After stopping, perform these post operation checks.

POST OPERATION CHECKLIST

1. Before turning off key switch, Check Battery Condition Meter.
2. Stop Machine and turn key switch to "Off" and Engage Wheel Lock.
3. Check all flaps for wear, damage, and adjustment.
4. Empty Hopper
5. Check Main Broom and Side Broom for wear or damage.
6. Charge Batteries if determined to be necessary in step 1 above.

SERVICE CHART



C0474

FIGURE 10

C0474

SERVICE CHART FOR 114 RS

Check items for proper operation. If service is required, please consult your Clarke/American-Lincoln Authorized Distributor:

EVERY 8 HOURS or DAILY

1. All flaps for wear or damage.
2. Wheel Lock for proper operation.
3. Main Brooms for wear or damage.
4. Side Brooms for wear or damage.
5. Check Batteries and charge if necessary. (See Page 22 for Battery charging instructions)
6. Empty Hopper and ensure latch is properly secured.
7. All Hardware, Panels and Covers for tightness and security

50 HOUR MAINTENANCE CHECKLIST

8. Check battery electrolyte level.
9. Lubricate front wheel bearing and pivot.
10. Rotate Main Broom end for end to prevent uneven wear.

100 HOUR MAINTENANCE CHECKLIST

11. Clean Hopper.
12. Remove and Clean / Inspect Dust Control Filter. Replace if necessary
13. Lubricate Wheel lock pins.

For service assistance, consult your local Clarke/American-Lincoln Distributor. For best performance, replace worn parts with genuine Clarke/American-Lincoln parts.

Refer all Maintenance and Service Requirements to Qualified Maintenance Personnel.

Do not attempt to Service this Machine until you have read and understand all Safety Warnings associated with the equipment you are working with.



WARNING

Electrical repairs must be done by authorized personnel only. Consult your Clarke Authorized Service Person to do service procedures. Use only genuine Clarke/American-Lincoln parts.



WARNING

Always park on a level surface, turn key off, and engage wheel lock before working on the machine to keep it from creeping or rolling.

IMPORTANT

If towing or pushing is required, disconnect motor lead located on the terminal block on the bottom of the machine



WARNING

Maintenance and repairs must be done by authorized personnel only. Always empty the Hopper and disconnect the batteries before doing any maintenance. Keep all fasteners tight. Keep adjustments according to the specifications as shown in the Service Manual for this machine.



WARNING

Always wear eye protection and protective clothing when working near batteries. Do not put tools or other metal objects across the tops of the batteries. NO SMOKING.



WARNING

To prevent damage to the machine and discharge across the tops of the batteries, do not fill the batteries above the bottom of the tube in each cell. Wipe any acid from the machine or the tops of the batteries. Do not add acid to a battery after installation.



WARNING

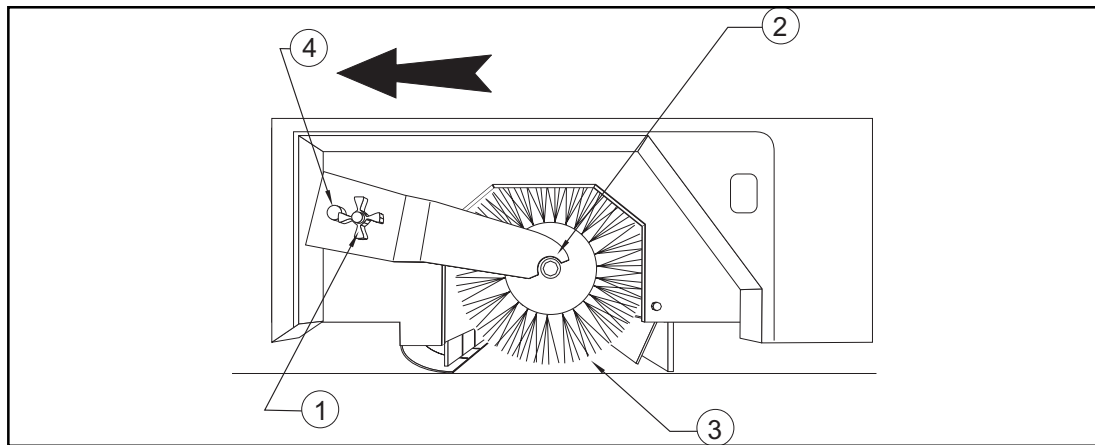
Always engage the safety latch before working under the Battery cover.



WARNING

Turn Key Off Before removing Battery Connector. Disconnecting the Battery with the key switch on will produce sparks and Could cause an Explosion.

SERVICE INSTRUCTIONS



C0477a

FIGURE 11

MAIN BROOM SERVICE INSTRUCTIONS TO CHECK THE MAIN BROOM SWEEP PATTERN

Check the main broom sweep pattern after changing the broom or when poor sweeping performance is encountered while sweeping.

1. While the machine is not moving, lower the main broom to the SWEEP position and let machine sweep in one spot for a short period.
2. Before moving machine, move main broom lever to the OFF position and move the sweeper forward until you can see the pattern left by the main broom bristles on the floor.
3. Check the width of the pattern on the floor to determine if the main broom requires adjustment.
 - A normal sweep pattern left on the floor will be between one and two inches wide.
 - A pattern that is more than two inches wide indicates the broom linkage needs to be adjusted "UP."
 - A pattern that is less than one inch wide indicates the broom linkage needs to be adjusted "DOWN."



WARNING

Always engage the safety latch before working under the Battery cover.

TO ADJUST THE MAIN BROOM SWEEP HEIGHT

When changing the sweep height adjustment it is recommended that the bolt be adjusted one turn at a time, After adjustment, recheck the sweep pattern to determine if further adjustment is necessary.

1. Gain access to the main broom height adjustment bolt by lifting the battery compartment cover, locking it in the up position and removing the right side panel cover.
2. Locate the Main Broom Height Adjustment bolt, which is located at the bottom of the Main Broom Lift linkage.(It will have a spring around it)
3. Turn the adjustment screw as described below.
 - Turn the adjustment bolt counterclockwise to INCREASE the sweep pattern width.
 - Turn the adjustment screw clockwise to DECREASE the sweep pattern width.



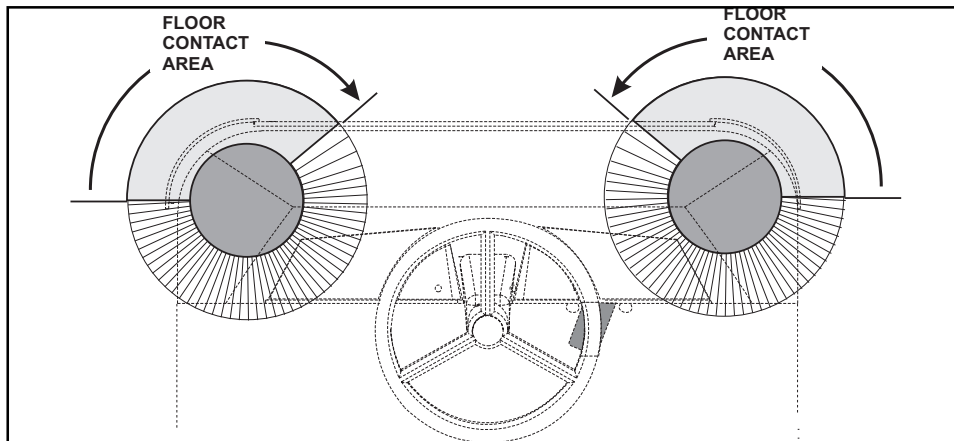
WARNING

Always park on a level surface, turn key off, and engage wheel lock before working on the machine to keep it from creeping or rolling.

TO CHANGE THE MAIN BROOM [See Figure 11]

Replace the main broom when the bristles become worn to 1-inch length.

1. Park the sweeper on a smooth level surface and engage the wheel lock.
2. Gain access to the main broom by opening the left-hand side broom compartment door.
3. Remove the Main broom Idler hub [Item 2] by loosening the threaded knob [Item 1].
4. Grasp the Main Broom [Item 3] and remove it from the drive hub. [Item 2].
5. Insert Replacement Broom [Item 3] into the broom compartment. Pay special attention to the slots on the broom, it may be necessary to rotate the broom so the tabs on the drive hub align with the slots on the broom.
6. Reinstall the idler hub [Item 2] to the broom and over the locator stud [Item 4] and screw provided for the threaded knob [Item 1].
7. Install the threaded knob and close the Broom Door.
8. Recheck Main Broom Sweep Pattern.



C0472

FIGURE 12

SIDE BROOMS SERVICE INSTRUCTIONS

The Side Brooms Sweeping angle is not adjustable however the height of the side brooms can be adjusted to compensate for wear as the brooms become worn from use. Two access panels need to be removed to make the Side Broom Height adjustment.

TO CHECK THE SIDE BROOM SWEEP PATTERN

1. Park the machine on a smooth level surface and turn the Side Broom Switch to the “ON” position.
2. Place the Side Broom Lift Lever in the “DOWN” position.
3. Move the Main Broom Lever to the “SWEEP” position.
4. While staying in place, allow the side brooms to sweep for a short period. (Allow enough time for the side brooms to leave a clean footprint on the floor).
5. Place the Side Broom Lift Lever in the “UP” position.
6. Turn the Side Broom Switch to the “OFF” position.
7. Move the Main Broom Lever to the “OFF” Position.
8. Back the sweeper away from the area where the Pattern was left.
9. Turn Key Switch to the “OFF” position and engage Wheel Lock.
10. Leave operator’s compartment and check the Pattern to determine the Floor Contact area.
11. Determine if adjustment to the side brooms height is necessary by comparing the floor contact area to the diagram in figure 12.



WARNING

Always park on a level surface, turn key off, and engage wheel lock before working on the machine to keep it from creeping or rolling.

TO CHANGE THE SIDE BROOMS HEIGHT ADJUSTMENT

1. Park Machine on a smooth level surface, turnkey switch to “OFF” Position and engage Wheel Lock.
2. Place the Side Brooms Lift Lever in the “DOWN” Position.
3. Remove the two access panel screws and remove panel.
4. Loosen the four bolts that pass through the slots in the side broom motor lift bracket.
5. Lower the side broom motor in the slots so the broom contacts the floor as shown. (See figure 12)
6. Tighten the four bolts and recheck the sweep pattern.
7. Reinstall the access panels when proper adjustment has been achieved.

TO CHANGE THE SIDE BROOMS (See Page 47 for detailed assembly)

Change the side brooms when the bristles become worn to less than 3 inches length.

1. Park Machine on a smooth level surface, turnkey switch to “OFF” Position and engage Wheel Lock.
2. Place the side brooms lever in the “DOWN” Position.
3. Remove the three (3) ¼ inch bolts and nuts that hold the broom to the motor flange.
4. Install the replacement Broom and fasten using the hardware removed in step 3.

SERVICE INSTRUCTIONS

DUST CONTROL SYSTEM SERVICE INSTRUCTIONS

The Dust Control system consists of a Filter Baffle and a Panel Filter. The filter baffle is located under the dust control filter and should be checked/cleaned when the hopper is being emptied. The Panel Filter is located in the rear compartment behind the seat.



WARNING

Always park on a level surface, turn key off, and engage wheel lock before working on the machine to keep it from creeping or rolling.

TO CLEAN THE FILTER BAFFLE

The filter baffle should be cleaned as a first step when the dust control system fails to effectively control dusting while sweeping.

1. Park the sweeper on a smooth level surface, Turn the key switch to the "OFF" position and engage the wheel lock.
2. Disconnect the Battery Connector, which is located next to the seat.
3. Remove the hopper.
4. Lower the baffle and inspect for debris lodged in the baffle passages.
5. Dislodge all debris from the baffle manually or with compressed air not to exceed 100 PSI.
6. Raise the baffle. Making sure the baffle "Locks" into place.
7. Reinstall the hopper.
8. Reconnect the Battery and return the Sweeper to service.



WARNING

Always engage the safety latch before working under the Battery cover.



WARNING

Turn Key Off Before removing Battery Connector. Disconnecting the Battery with the key switch on will produce sparks and Could cause an Explosion.

TO CLEAN THE PANEL FILTER

Clean the Panel filter when the shaker fails to adequately clear the filter pleats.

(Refer to page 39 for detailed assembly drawing)

1. Park the sweeper on a smooth level surface, Turn the key switch to the "OFF" position, and engage the wheel lock.
2. Disconnect the Battery Connector, which is located next to the seat.
3. Raise the Battery compartment cover and engage the safety latch.
4. Remove the rear cover.
5. Locate and remove the four wing nuts that hold the filter manifold assembly in place over the filter.
6. Disconnect the shaker motor leads and the Vac fan leads and lift the Vac Fan/Manifold assembly off the dust filter.
7. Remove the filter and blow the dust off the filter with compressed air not to exceed 100 PSI
8. Reinstall the cleaned filter and assemble the Vac Fan/Manifold Assembly to the filter.
9. Connect the shaker motor leads and the Vac fan leads.
10. Install the four Wing Nuts and tighten enough to lightly compress the gasket on the filter.
11. Reinstall the Rear cover and lower the Battery Compartment cover.
12. Reconnect the Battery and return the Sweeper to service.



WARNING

Always engage the safety latch before working under the Battery cover.



WARNING

Turn Key Off Before removing Battery Connector. Disconnecting the Battery with the key switch "on" will produce sparks and Could cause an Explosion.



WARNING

Always park on a level surface, turn key off, and engage wheel lock before working on the machine to keep it from creeping or rolling.

TO CHANGE THE PANEL FILTER

Change the filter when obvious damage is evident, Inspect for leakage or a heavily loaded filter to the point that cleaning and shaking of the filter has no effect on clearing the pleats.

TO CHANGE THE PANEL FILTER - Cont.

1. Park the sweeper on a smooth level surface, Turn the key switch to the "OFF" position and engage the wheel lock.
2. Disconnect the Battery Connector, which is located next to the seat.
3. Raise the Battery compartment cover and engage the safety latch.
4. Remove the rear cover.
5. Locate and remove the four wing nuts that hold the filter manifold assembly in place over the filter.
6. Disconnect the shaker motor leads and the Vac fan leads and lift the Vac Fan/Manifold assembly off the dust filter.
7. Remove and replace the dust filter.
8. Reinstall the cleaned filter and assemble the Vac Fan/Manifold Assembly to the filter.
9. Connect the shaker motor leads and the Vac fan leads.
10. Install the four Wing Nuts and tighten enough to lightly compress the gasket on the filter.
11. Reinstall the Rear cover and lower the Battery Compartment cover.
12. Reconnect the Battery and return the Sweeper to service.

FLAP SERVICE INSTRUCTIONS

The Flaps are very important to the sweeping process. Inspect the Flaps Daily and replace any flap that shows signs of wear or deterioration. The drive wheel and side flaps are adjustable and should be adjusted so there is a recommended 1/16" to 1/8" gap between the floor and the bottom edge of the flaps. The adjustable flaps have slotted mounting holes to facilitate adjustment. The Recycling flap is also an adjustable flap and should be adjusted so the flap touches the broom. The adjustment bolt is located inside the left side broom chamber door. All other flaps require no adjustment and should be replaced when worn or damaged.



WARNING

Turn Key Off Before removing Battery Connector. Disconnecting the Battery with the key switch on will produce sparks and Could cause an Explosion.



WARNING

Always park on a level surface, turn key off, and engage wheel lock before working on the machine to keep it from creeping or rolling.

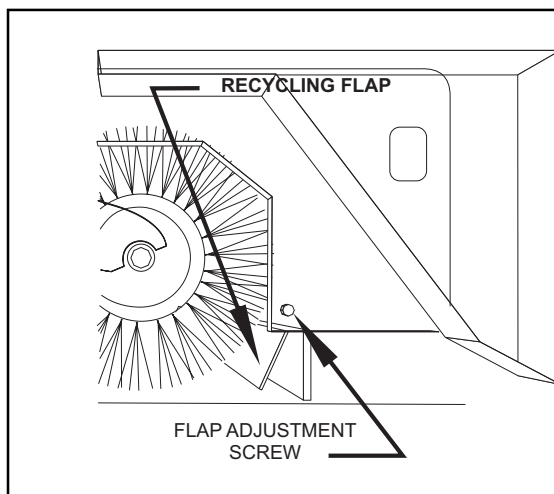
TO ADJUST THE DRIVE WHEEL AND SIDE FLAPS

1. Park Sweeper on a smooth level surface. Turn the key switch to the "OFF" position and engage the wheel lock.
2. Disconnect the Battery Connector located next to the seat.
3. Loosen the Flap retaining screws and adjust the flap to clear the floor and leave a 1/16" to 1/8" Gap.
4. Tighten Flap retaining screws while holding flap in position.
5. Reconnect the Battery Connector.



WARNING

Turn Key Off Before removing Battery Connector. Disconnecting the Battery with the key switch on will produce sparks and Could cause an Explosion.



C0477b

FIGURE 13



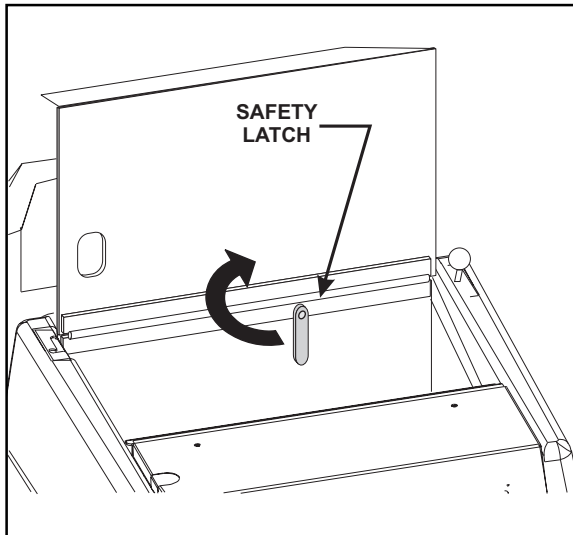
WARNING

Always park on a level surface, turn key off, and engage wheel lock before working on the machine to keep it from creeping or rolling.

TO ADJUST THE RECYCLING FLAP

1. Park Sweeper on a smooth level surface. Turn the key switch to the "OFF" position and engage the wheel lock.
2. Disconnect the Battery Connector located next to the seat.
3. Open the left side broom door and locate the recycling flap adjustment screw (See Figure 13)
4. Loosen the adjustment screw and turn the flap upwards so the flap touches the ends of the broom bristles.
5. Tighten the adjustment screw while holding the flap in place.
6. Close and Latch the left side broom door Reconnect the Battery.

SERVICE INSTRUCTIONS



C0471

FIGURE 14

BATTERY SERVICE INSTRUCTIONS TO CHARGE THE BATTERIES

1. Ensure Wheel Lock is engaged and key switch is "Off".



WARNING

Turn Key Off Before removing Battery Connector. Disconnecting the Battery with the key switch on will produce sparks and Could cause an Explosion.



WARNING

Always wear eye protection and protective clothing when working near Batteries.



WARNING

Remove all Jewelry and do not lay tools etc. across the tops of Batteries. Batteries produce Explosive Hydrogen Gas. Keep Sparks and Flames away from Batteries. **NO SMOKING.**



WARNING

Always engage the safety latch before working under the Battery cover.

2. Disconnect Machine Battery Connector.
3. Raise Battery Cover and engage Safety Latch. (See Figure 14)
4. Insert charging plug into battery receptacle.
5. Plug power cord into proper AC source.
6. Leave battery cover open while charging.
7. Follow the charging instructions provided on the Charger.
8. Maintain electrolyte level in batteries check after charging. Add distilled water as needed (See Figure15)



WARNING

Hydrogen gas is formed during the charging operation and is explosive! Only charge batteries in a well-ventilated area with the lid open. Avoid any open flame or electrical sparks. Pulling out the charger plug with the Charger on will cause an arc and must be avoided.



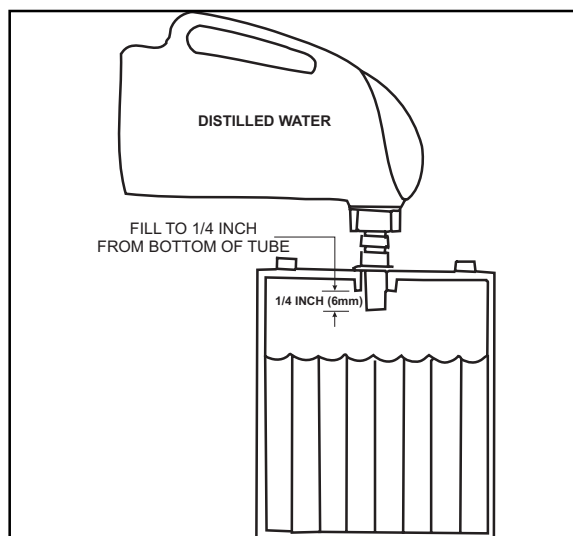
WARNING

Batteries are heavy. Use two people to lift the batteries.



WARNING

Always engage the safety latch before working under the Battery cover.



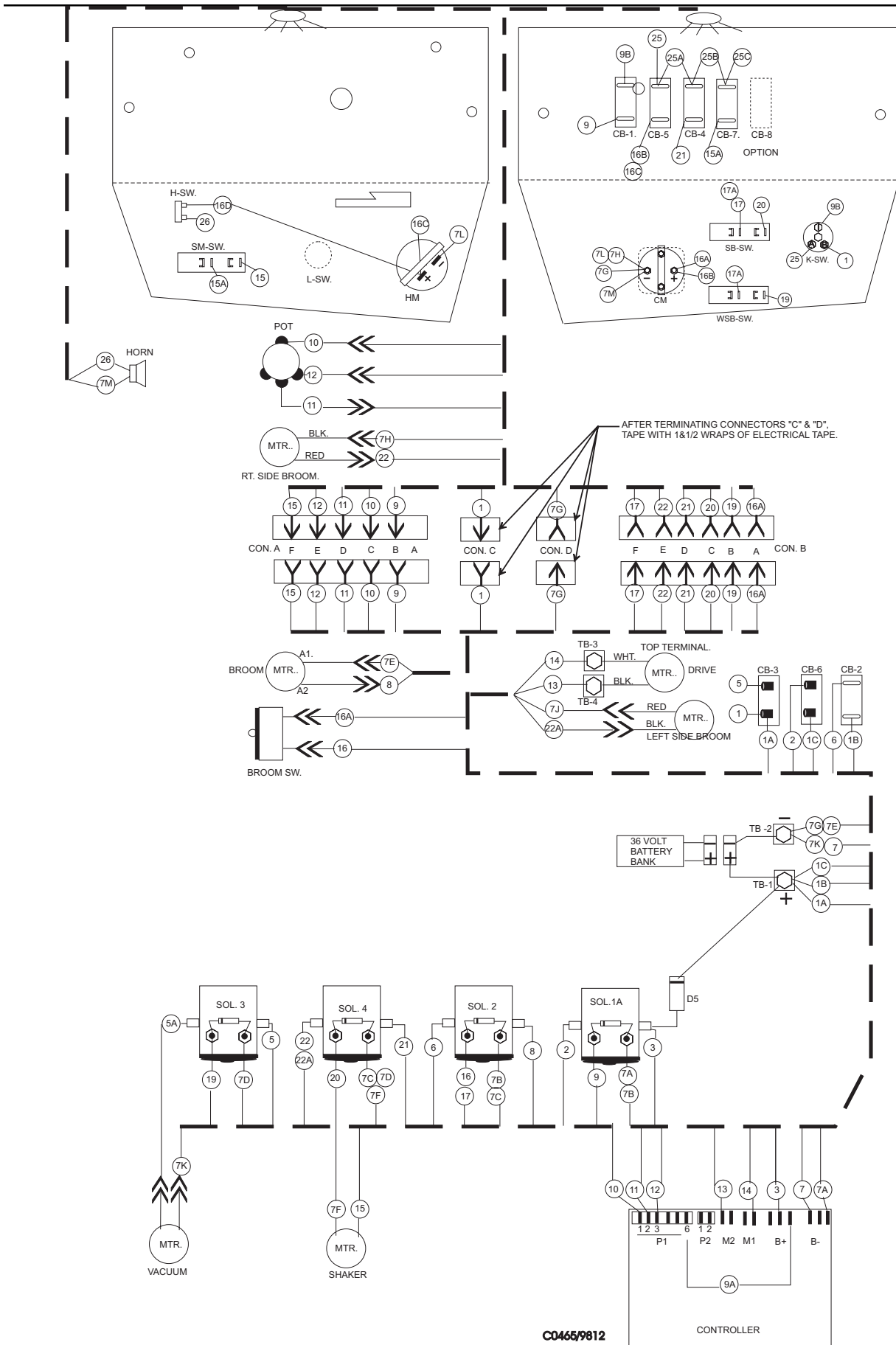
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FIGURE 15

TO REMOVE THE BATTERIES

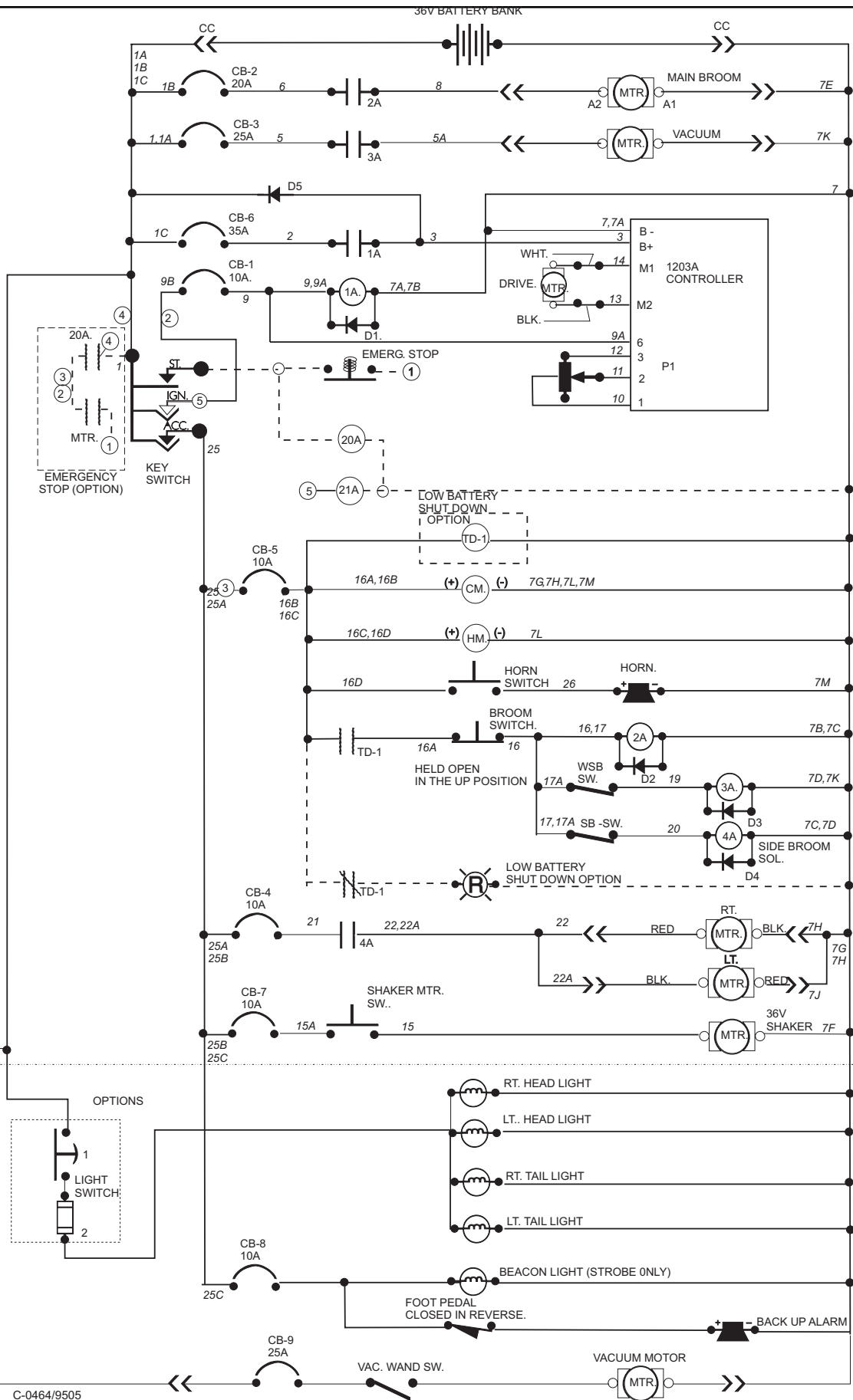
1. Turn Key Switch "Off" and engage the wheel lock.
2. Unplug the battery connector located next to the operator's seat.
3. Raise the battery compartment cover and engage the Safety Latch.(See Figure 14)
4. Disconnect the Battery Cables.
5. Lift the Batteries out one at a time.

CONNECTION DAIGRAM



C0465/9812

SCHEMATIC DIAGRAM



ABBREVIATIONS - SCREWS

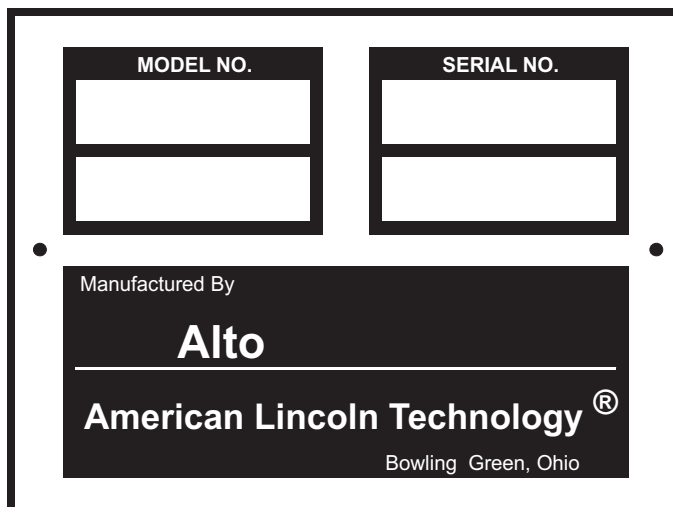
ADJ	= Adjusting Screw
ADJ.SP	= Adjusting Plunger Screw
BHM	= Binding Head Machine Screw
BHS	= Button Head Socket Screw
CAPT.SL	= Captivated Slotted Screw
CAPT.WG	= Captivated Wing Screw
FHM	= Flat Head Machine Screw
FIL.HM	= Filister Head Machine Screw
HHC	= Hexagon Head Cap Screw
HHM	= Hexagon Head Machine Screw
HIHD	= 1/2 High Head Screw
HSHC	= Hexagonal Socket Head Cap Screw
HSFHC	= Hexagonal Socket Flat Head Cap Screw
KNH	= Knurled Head Screw
MHHC	= Metric Hexagon Head Cap Screw
PHM	= Pan Head Machine Screw
RHD	= Round Head Drive Screw
RHM	= Round Head Machine Screw
RHW	= Round Head Wood Screw
SHC	= Shiny Crown Cap Screw
SHTB	= Shoulder Thumb Screw
SQ	= Square Head Screw
TB	= Thumb Screw
THM	= Truss Head Machine Screw
WELD	= Weld Stud
WG	= Wing Screw

ABBREVIATIONS - SETSCREWS

HS	= Hexagonal Socket Setscrew
S	= Slotted Setscrew
SH	= Square Head Setscrew
-KCP	= Knurled Cup Point Setscrew
-CP	= Cup Point Setscrew
-OP	= Oval Point Setscrew
-FDP	= Full Dog Point Setscrew
-HDP	= Half Dog Point Setscrew
-FP	= Flat Point Setscrew
-COP	= Cone Point Setscrew

ORDERING PARTS

Parts may be ordered from American- Lincoln authorized distributors. Inspect the Alto U.S. serial plate to avoid delays in filling you orders:



1. Use the model number, catalog number, and serial number when ordering.
2. Give the part number, description, and quantity of parts needed.
3. Give shipping instructions for either freight, UPS, or parcel post.

Parts and supplies listed in this manual can be ordered from the following address:

Alto U.S., Inc. American Lincoln Technologies	Alto U.S., Inc. Distributor
1100 Haskins Road Bowling Green, Ohio 43402 (800) 331-7692	

MACHINE CATALOG NUMBER

575-102	114RS, 228 AH BATTERY, 110v. CHARGER, PROEX BROOM
575-103	114RS, 228 AH BATTERY, 110v. CHARGER, NYLON BROOM
575-104	114RS, 228 AH BATTERY, 110v. CHARGER, HI DENSITY NYLON BROOM
575-105	114RS, 330 AH BATTERY, 110v. CHARGER, PROEX BROOM
575-106	114RS, 330 AH BATTERY, 110v. CHARGER, NYLON BROOM
575-107	114RS, 330 AH BATTERY, 110v. CHARGER, HI DENSITY NYLON BROOM
575-108	114RS, 228 DRY BATTERY, 230v. CHARGER, PROEX BROOM
575-109	114RS, 228 DRY BATTERY, 230v. CHARGER, NYLONBROOM
575-110	114RS, 228 DRY BATTERY, 230v. CHARGER, HI DENSITY NYLON BROOM
575-111	114RS, 330 DRY BATTERY, 230v. CHARGER, PROEX BROOM
575-112	114RS, 330 DRY BATTERY, 230v. CHARGER, NYLONBROOM
575-113	114RS, 330 DRY BATTERY, 230v. CHARGER, HI DENSITY NYLON BROOM

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Console Assembly	2-12
Filter System	2-14
Drive Compartment & Seat	2-16
Steering & Drive	2-18
Wheel Lock	2-20
Power Panel	2-22
Instrument Panel	2-24
Decals	2-26

MAIN BROOM - PARTS LIST

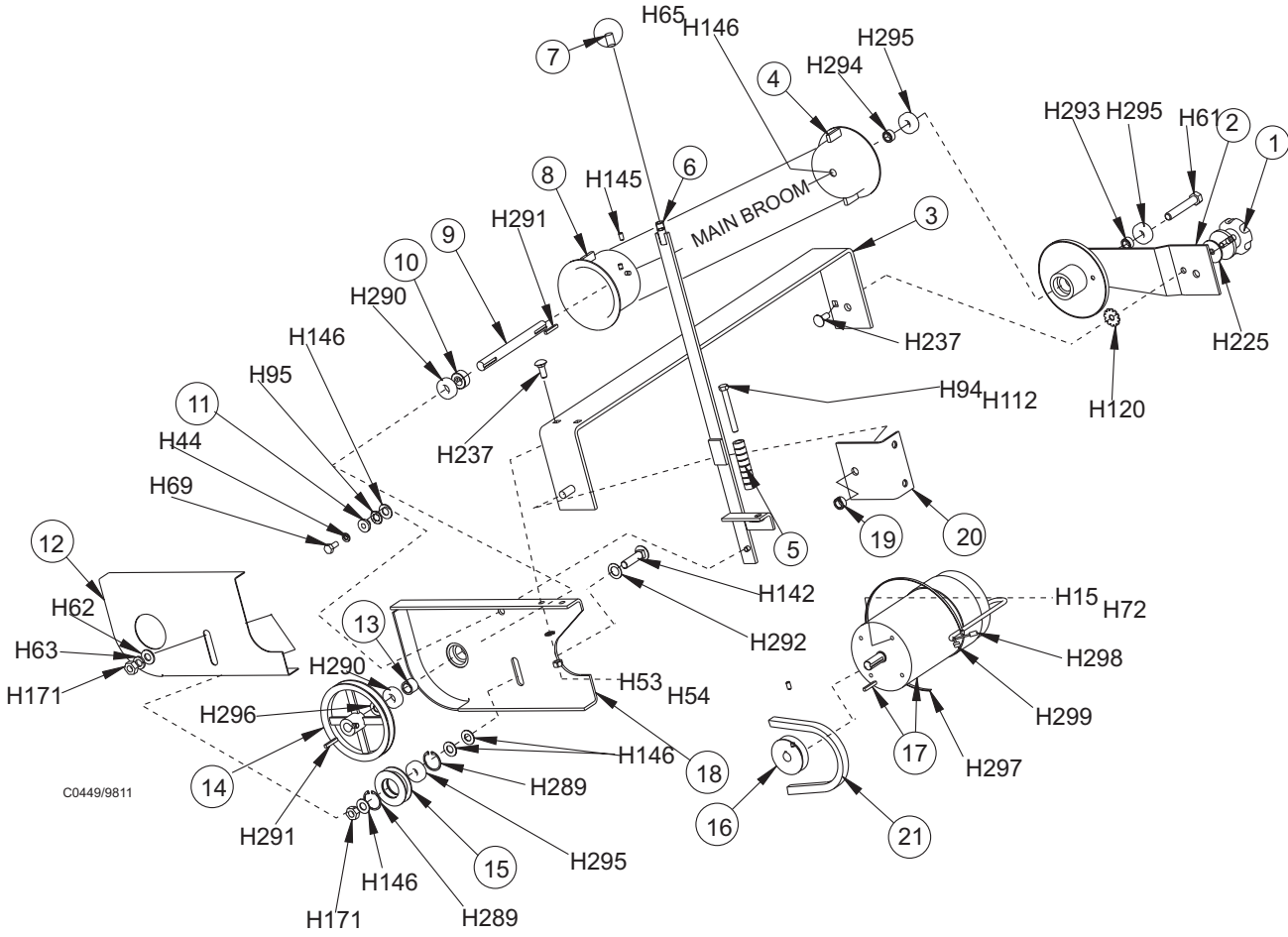
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	7-39-00026	Knob	1
2	8-03-04296	L.H. Arm	1
3	8-81-00166	Support	1
4	8-33-09059	Idler Hub	1
5	2-10-01336	Spring	1
6	8-41-05076	Lever	1
7	8-39-00003	Knob	1
8	8-33-09062	Drive Hub	1
9	8-70-05291	Shaft	1
10	8-15-01002	Collar	1
11	7-09-01057	Bushing	1
12	8-16-07344	Cover	1
13	8-75-01147	Spacer	1
14	7-60-00167	Pulley, Broom	1
15	8-60-00161	Pulley, Idler	1
16	7-60-00166	Pulley, Motor	1
17	0782-110	Motor	1
	0775-215	Brush Assembly for 0782-110	
18	8-03-04295	R.H. Arm	1
19	2-00-03589	Collar	1
20	8-08-00766	Bracket	1
21	2-00-05259	Belt, Broom Drive	1

HARDWARE USED:

H15	2-00-00221	Screw, 1/4-20 x .750 HHC	4
H44	2-00-00530	Lock Washer, 5/16 HS Med.	1
H53	2-00-02310	Lock Washer, Helical Spring 3/8 Med.	2
H54	2-00-02360	Nut, 3/8-16 Hex	2
H61	2-00-02616	Screw, 1/2-13 x 3.000 HHC,	1
H62	2-00-00405	Flat Washer	1
H63	2-00-02312	Lock Washer, 1/2 HS Med.	1
H65	2-00-04936	Nut, 1/2-13 Fiber Lock	1
H69	2-00-01255	Screw, 5/16-18 x .875 HHC	1
H72	2-00-00518	Lock Washer, Helical Spring 1/4 Med.	4
H94	2-00-00410	Flat Washer, .875 x .375 x .060	1
H95	2-00-03382	Spring Washer, .875 x .500 x .015	1
H112	2-00-02603	Screw, 3/8-16 x 3.500 HHC,	1
H120	2-00-03829	Lock Washer, 3/8 Bolt	1
H142	2-00-05244	Carriage Bolt, 1/2 -13 x 2.00	1
H145	2-00-04180	Set Screw, 1/4-20 x .500	2
H146	2-00-00420	Washer, 1.00 x .515 x .062	5
H171	2-00-02371	Nut, 1/2-13 Hex. Jamb	2
H225	2-00-04851	Washer, Engine Mount	1
H237	2-00-03855	Carriage Bolt, 3/8-16 x 1.000	3
H289	2-00-00532	Snap Ring	2
H290	2-00-02049	Bearing, Double Seal	2
H291	2-00-02243	Square Key, .188-.187 x 1.250	2
H292	2-00-02293	Lockwasher, 5/8 Int.	1
H293	2-00-03151	Spacer, 1/2 ID 3/4 OD .625 Lg	1
H294	2-00-03158	Spacer, 1/2 ID, 3/4 OD, 3/8 LG.	1
H295	2-00-03306	Bearing	3
H296	2-00-03413	Flat Washer, 1.125 x .765 x .062	3
H297	2-00-04345	Tye-Wrap	1
H298	2-00-04708	Terminal	1
H299	2-00-05183	Terminal, 1/4 x .03 12-10	1

C-0449/9811

MAIN BROOM - EXPLODED VIEW



SIDE BROOMS - PARTS LIST

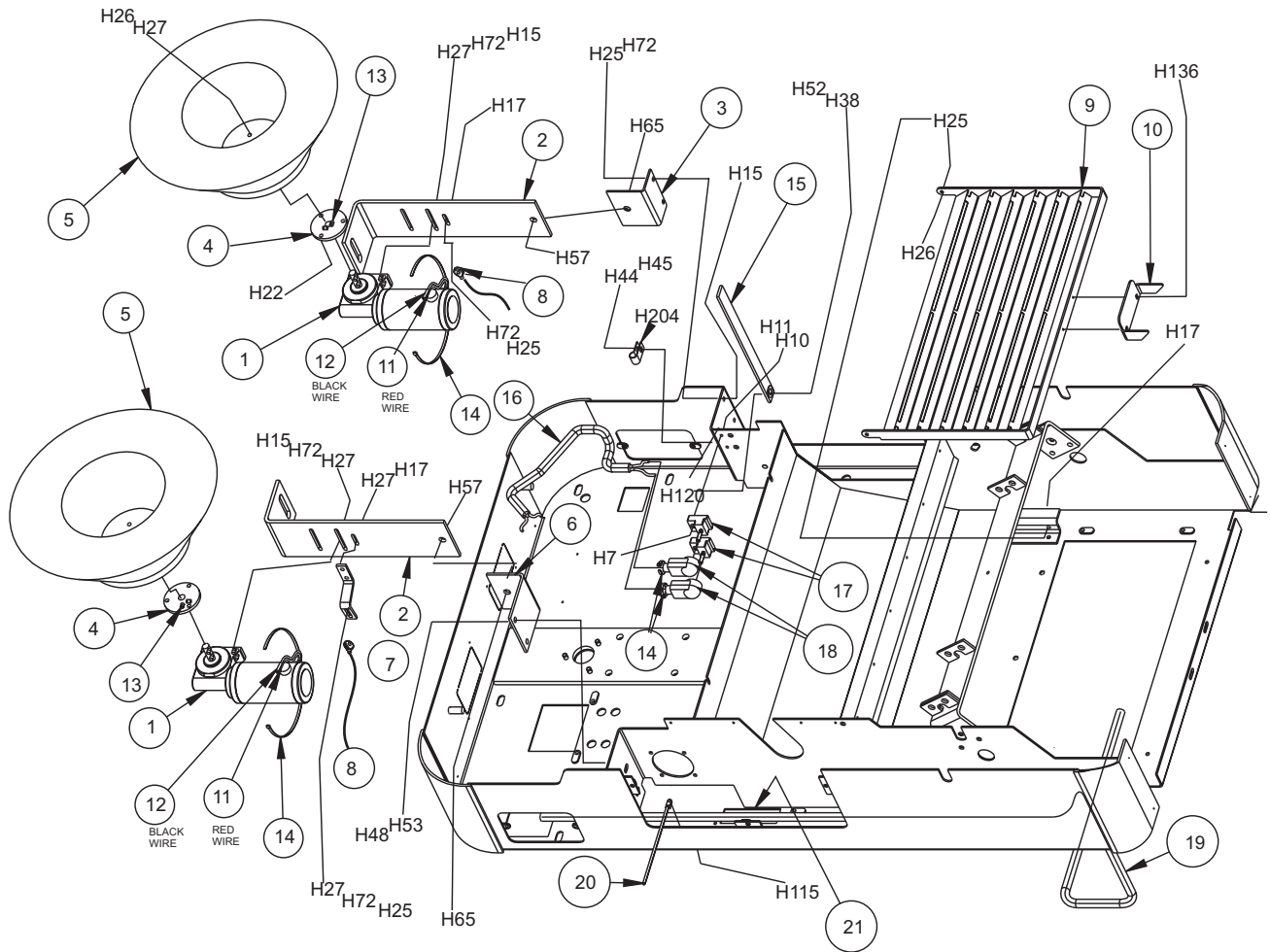
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	0885-082	Brush Drive Motor	2
	0875-134	Brushes for 0885-082	
2	8-03-04297	Motor Mounting Bracket	2
3	8-08-00769	Motor Mounting Bracket	1
4	7-25-06035	Flange, Side Broom	2
5	8-08-03215	Side Broom	2
6	8-08-00770	Motor Mounting Bracket	1
7	8-31-07012	Hanger, Side Broom	1
8	8-10-00036	Lift Cable	2
9	8-18-03024	Deflector	1
10	8-41-00049	Deflector Latch	1
11	2-00-04578	Wire Terminal (Male)	2
12	2-00-04626	Wire Terminal (Female)	2
13	2-00-00263	Set Screw, 1/4-20 x .25	4
14	2-00-04345	Tye-Wrap	4
15	8-79-00030	Strap	1
16	8-90-07431	Wire, Drive Motor	1
17	8-06-05004	Stand Off	2
18	2-00-04203	Boot	2
19	0895-107	Wire Harness	Ref.
20	2-00-04937	Tye- Wrap	1
21	8-21-04054	Edging	1

HARDWARE USED:

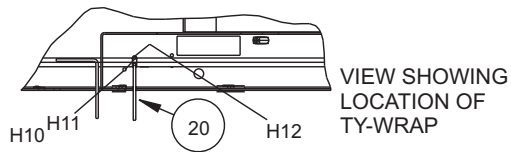
H7	2-00-00056	Screw #10-24 x .750 RHM	2
H10	2-00-00519	Lock Washer #10 Med. HS	2
H11	2-00-00605	Nut Hex MS #10-24 x .375 x .125	2
H12	2-00-01246	Nut,Hex Fiber Insert #10-24	1
H15	2-00-00221	Screw, 1/4-20 x.750 HHC	11
H17	2-00-00205	Screw, 1/4-20 x.75 HHC	5
H22	2-00-02589	Screw, 1/4-20 x 2.000 HHC	6
H25	2-00-00594	Nut Hex 1/4-20	8
H26	2-00-00641	Nut, 1/4-20 Insert Fiber	8
H27	2-00-03702	Flat Washer, .625 x .281 x .062	11
H38	2-00-00225	Screw, 5/16-18 x 1.50 HHC	1
H44	2-00-00530	Lock Washer, 5/16 HS Med.	2
H45	2-00-00585	Nut, Hex. 5/16-18 x .500 x .265	2
H48	2-00-00233	Screw, 3/8-16 x 1.000 HHC	2
H52	2-00-00402	Washer	1
H53	2-00-02310	Lock Washer, Helical Spring 3/8 Med.	2
H57	2-00-00240	Screw, 1/2-13 x 1.250 HHC	2
H65	2-00-04936	Nut, 1/2-13 Fiber Lock	2
H72	2-00-00518	Lock Washer, Helical spring 1/4 Med.	14
H115	2-00-03063	Screw, #10-24 x .750 THM	1
H120	2-00-03829	Lock Washer, 3/8 "	1
H136	2-00-03940	Screw, #10-24 x .500 MMTF	2
H204	2-00-04873	Clamp	1

C-0457/9811

SIDE BROOMS - EXPLODED VIEW



C0457/9811



DOORS, FLAPS & SEALS - PARTS LIST

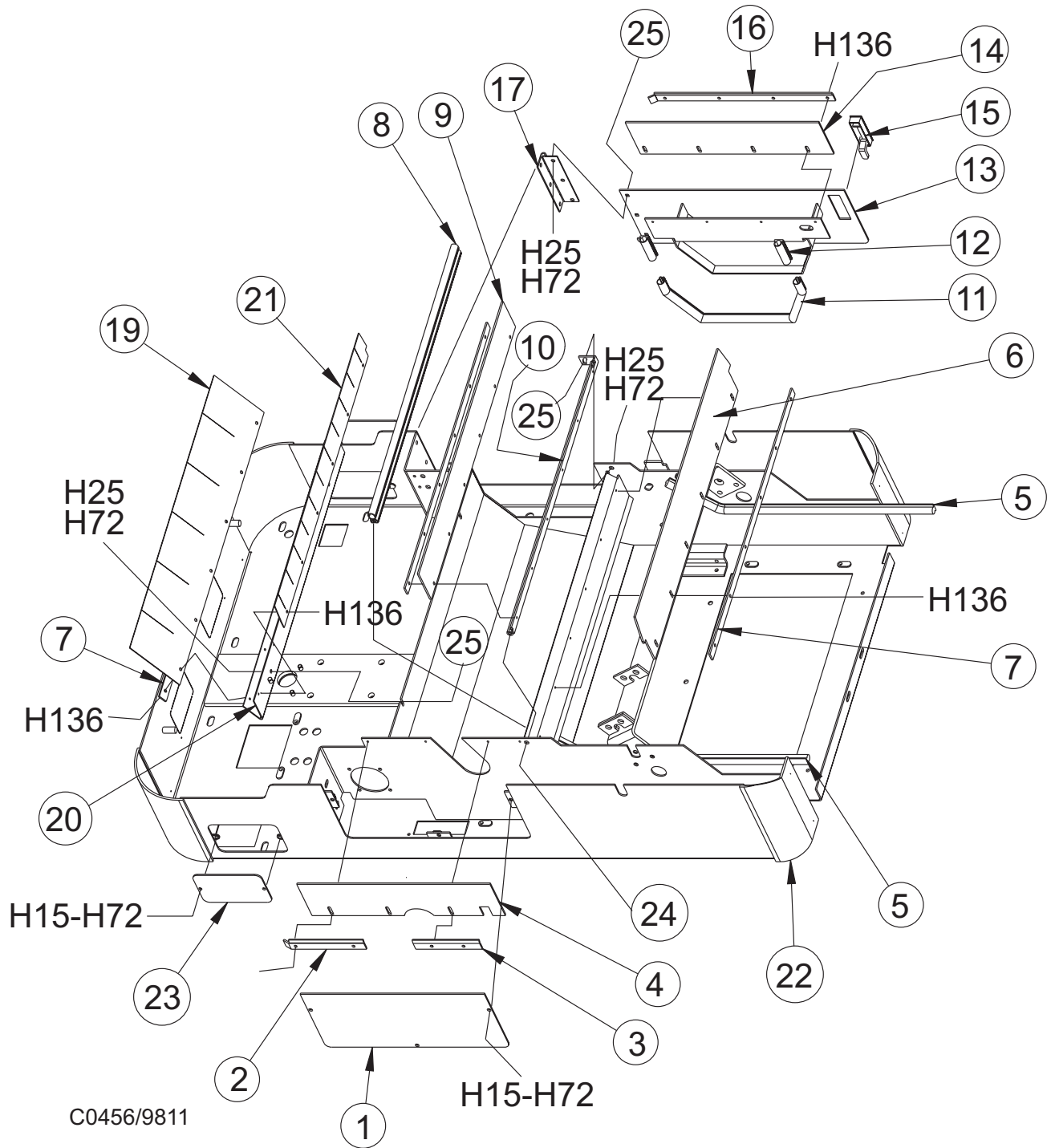
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	8-19-08056	Door, R.H.	1
2	8-13-07110	Clamp, R.H. Front	1
3	8-13-07108	Clamp, R.H. Rear	1
4	8-25-08191	Flap, Right Side	1
5	8-29-05072	Seal, Side Hopper	2
6	8-25-08190	Flap, Rear Outer	1
7	8-13-07107	Clamp	4
8	8-29-00226	Seal, Center Hopper	1
9	8-25-08186	Flap, Rear Inner	1
10	8-31-07010	Hanger, Rear Flap	1
11	8-29-00224	Seal, Door Upper	1
12	8-29-00225	Seal, Door Lower	2
13	8-19-08057	Door, L.H.	1
14	8-25-08187	Flap, L.H. Door	1
15	8-41-00044	Latch	1
16	8-13-07109	Clamp, L.H. Door	1
17	8-32-00044	Hinge	1
18			
19	8-25-08188	Flap, Front Outer	1
20	8-31-07011	Hanger, Front Flap	1
21	8-25-08189	Flap	1
22	8-27-07110	Frame, 114RS	1
23	8-19-08055	Door Side Broom	2
24	2-00-03038	Screw, 1/4-20 x .500	2
25	2-00-04190	Carriage Bolt, 1/4-20 x .625	3

HARDWARE USED:

H15	2-00-00221	Screw, 1/4-20 x .750 HHC	7
H25	2-00-00594	Nut, Hex 1/4-20 x .437 x .218	6
H72	2-00-00518	Lock Washer, Helical Spring 1/4 Med.	13
H136	2-00-03940	Screw, #10-24 x .500 MMTF	32

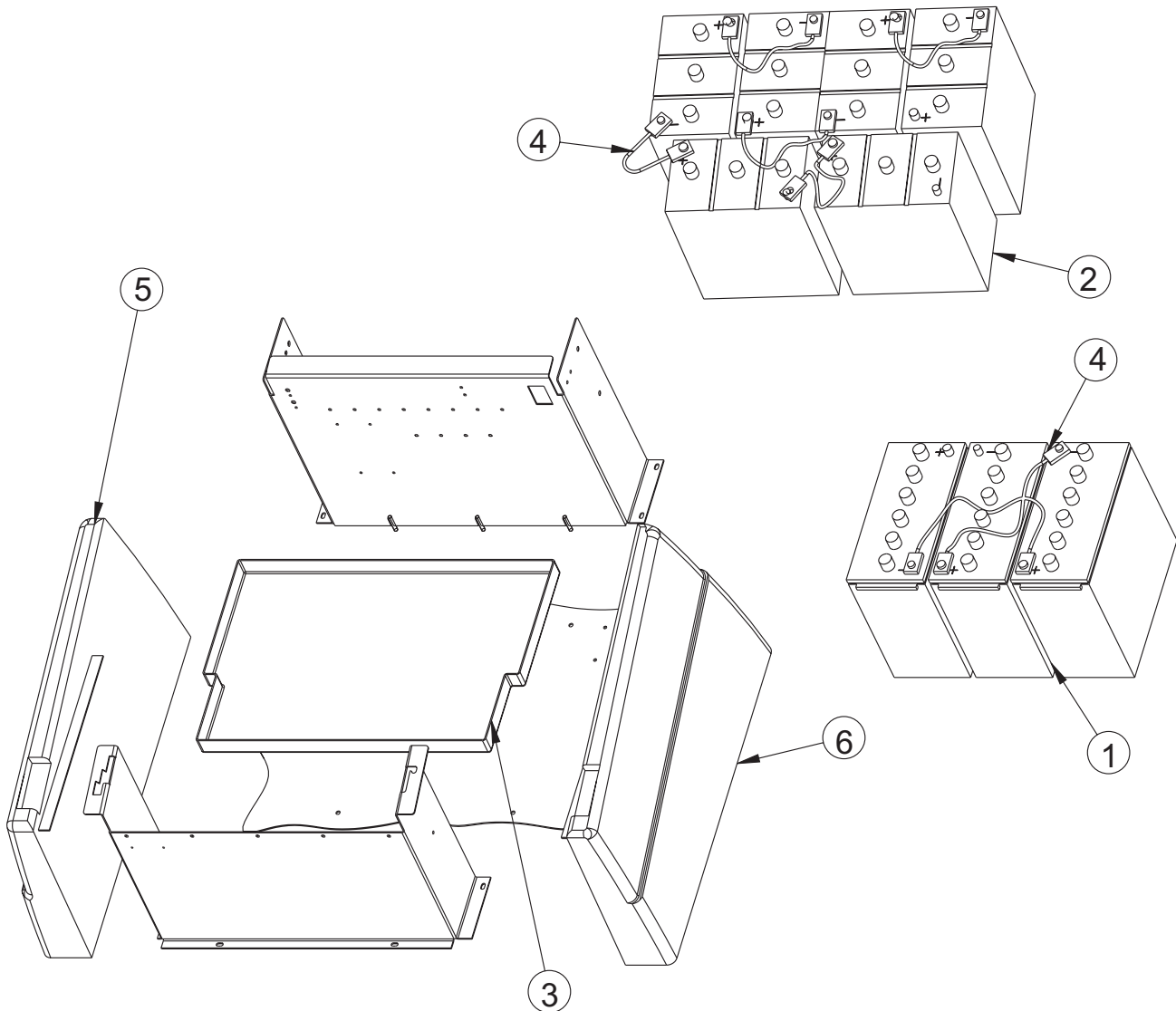
C-0456/9812

DOORS, FLAPS & SEALS - EXPLODED VIEW



C0456/9811

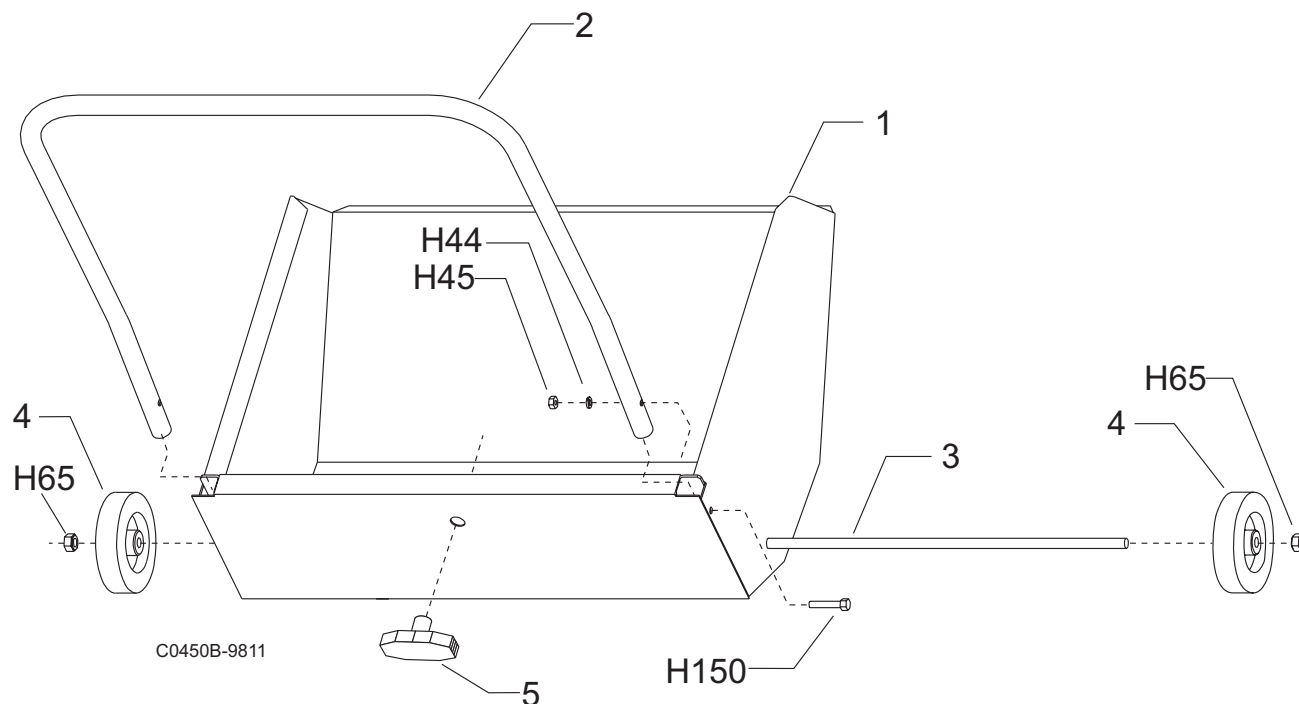
SIDE COVER & BATTERY PAN



C455a/9811

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	0875-105	Battery (12 volt)	3
2	0875-103	Battery (6 volt)	6
3	8-51-05016	Battery Pan	1
4	7-90-07286	Wire - Battery (12 volt)	2
4	7-90-07286	Wire - Battery (6 volt)	5
5	8-16-07413	Side Cover	1
6	8-16-07414	Side Cover	1

C-0455a/9811



<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	8-32-06101	Hopper	1
2	8-31-06082	Handle	1
3	8-70-05290	Axle	1
4	8-89-08066	Wheel	2
5	8-41-00060	Latch	1

HARDWARE USED:

H45	2-00-00585	Nut, Hex. 5/16-18 x .500 x .265	2
H44	2-00-00530	Lock Washer, 5/16 HS Med.	2
H65	2-00-04936	Nut, 1/2-13 Fiber Lock	2
H150	2-00-00211	Screw, 5/16-18 x 1.750 HHC	2

C-0450/9812

FORWARD/REVERSE PEDAL - PARTS LIST

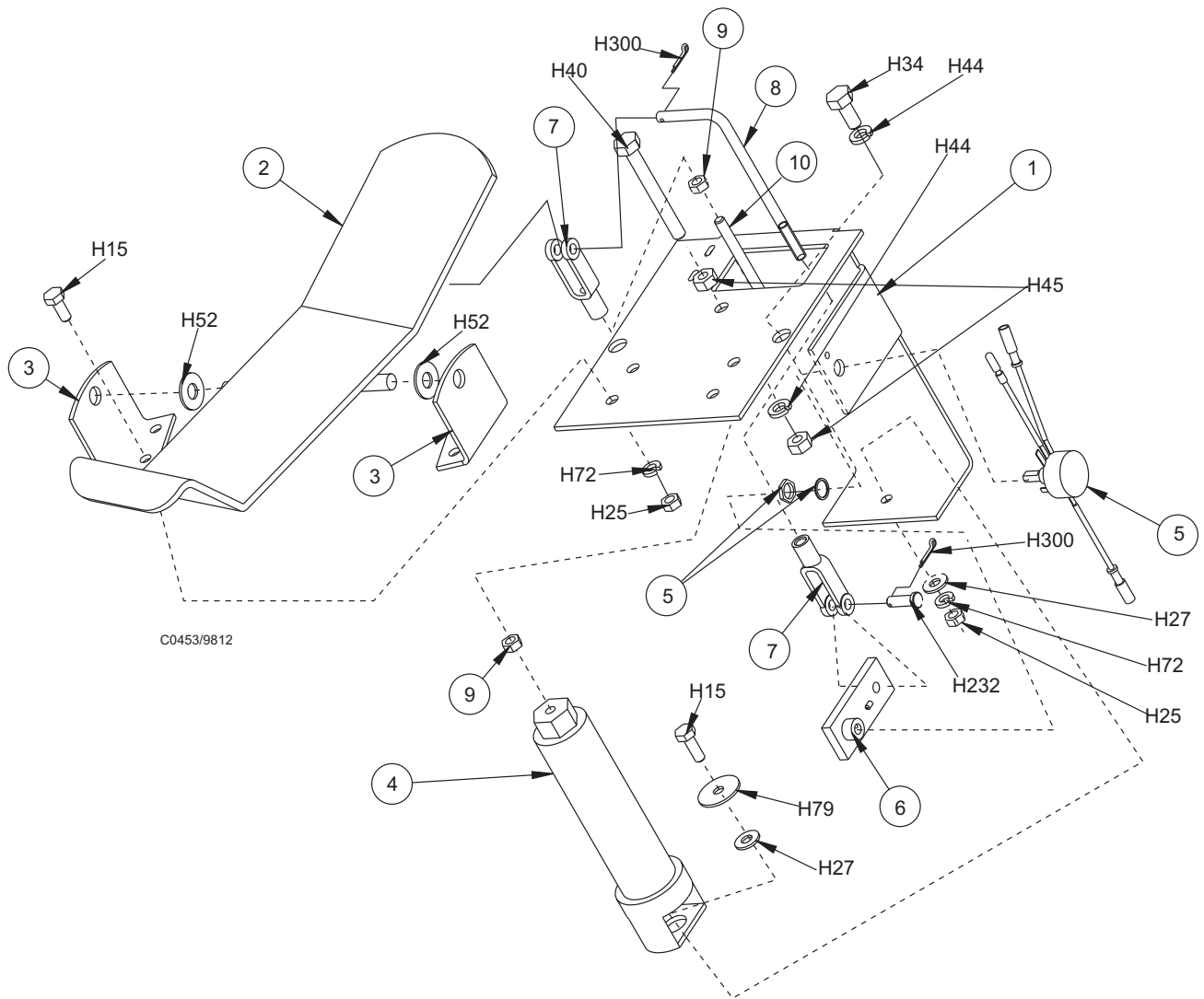
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	8-08-00764	Bracket, Pedal Mounting	1
2	8-55-00032	Pedal, Forward/Reverse	1
3	7-08-00592	Bracket, Pedal Mounting (Black)	2
4	8-16-00025	Centering Device	1
5	0875-113	Potentiometer	1
6	7-03-04137	Potentiometer Lever Arm	1
7	8-14-01006	Clevis	2
8	8-42-05135	Interconnecting Rod	1
9	2-95-01999	Nut, 1/4-28	2
10	7-66-00147	Interconnecting Rod	1

HARDWARE USED:

H15	2-00-00221	Screw, 1/4-20 x .750 HHC	5
H25	2-00-00594	Nut, Hex 1/4-20 x .437 x .218	5
H27	2-00-03702	Washer, .625 x .281 x .062	2
H34	2-00-00208	Screw, 5/16-18 x .750 HHC	2
H40	2-00-01770	Bolt, Hex Head, 5/16 - 18 x 2.750	1
H44	2-00-00530	Lock Washer, 5/16 Med. HS	3
H45	2-00-00585	Nut Hex, 5/16-18 x.500 x.265	2
H52	2-00-00402	Washer, .750 x .390 x .093	2
H72	2-00-00518	Lock Washer, Helical Spring 1/4 Med.	5
H79	2-00-01676	Flat Washer, 1.062 x .265 x .062	1
H232	2-00-04909	Yoke Pin Assembly	1
H300	2-00-00767	Cotter Pin, .063 x.500	2

C-0453/9812

FORWARD/REVERSE PEDAL - EXPLODED VIEW



CONSOLE ASSEMBLY - PARTS LIST

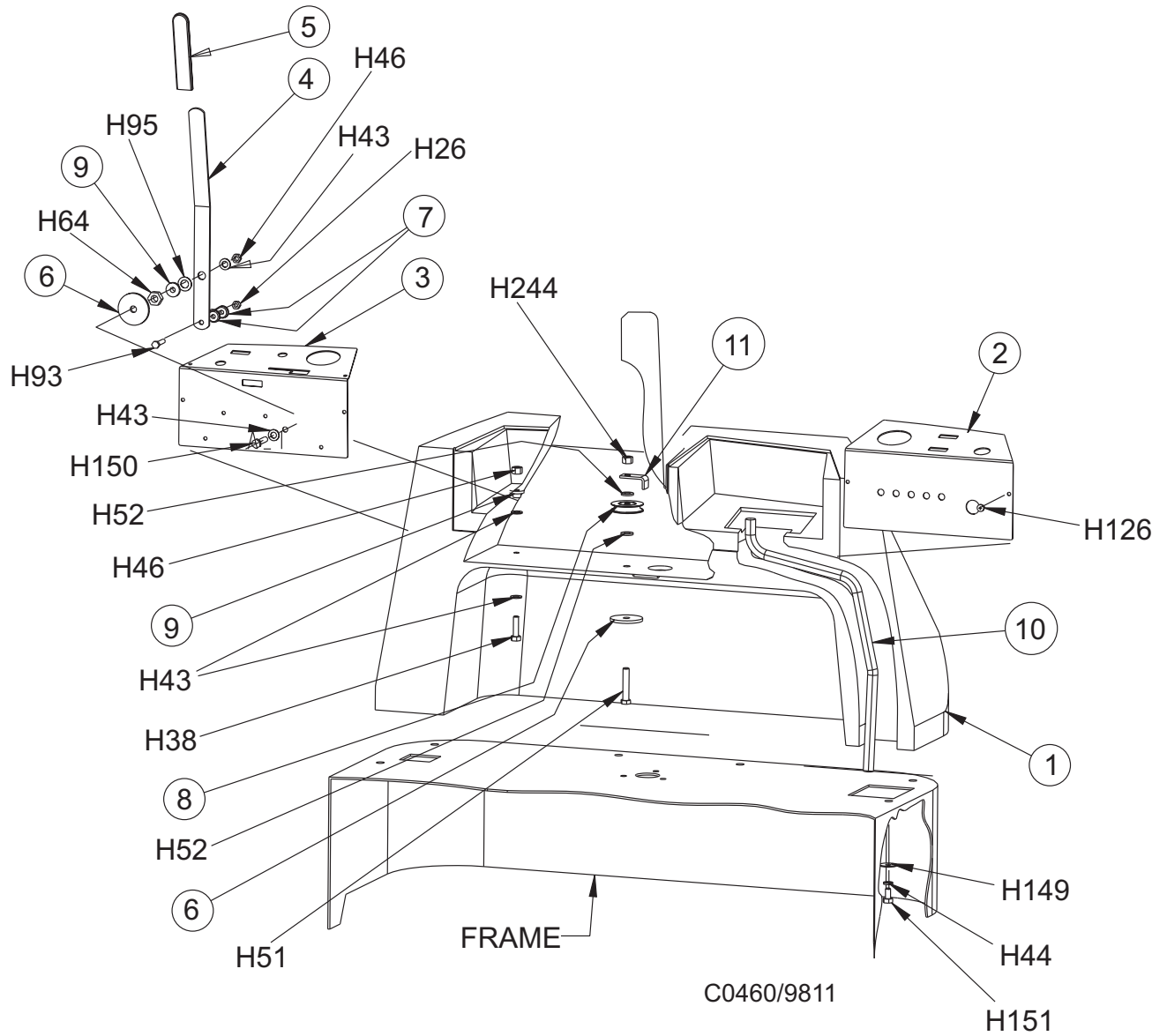
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	8-33-05149	Console	1
2	8-52-00166	Instrument Panel (R.H.)	1
3	8-52-00165	Instrument Panel (L.H.)	1
4	8-41-05078	Lift Arm	1
5	7-31-06065	Cover	1
6	2-95-04689	Flat Washer	2
7	8-10-00036	Cable	2
8	7-60-00160	Pulley	1
9	7-09-01057	Spacer	1
10	0895-108	Wire Harness, Instrument Panel	1
11	7-13-07130	Bracket - Cable Clamp	1

HARDWARE USED:

H26	2-00-00641	Nut, 1/4-20 Insert Fiber	1
H38	2-00-00225	Screw, 5/16 - x 1.500 HHC	1
H43	2-00-00409	Flat Washer, .687 x .343 x .062	9
H44	2-00-00530	Lock Washer, 5/16 HS Med.	7
H46	2-00-00644	Nut, 3/8 - 16 Stop	2
H51	2-00-00216	Screw, 3/8 - 16 x 2.000 HHC	1
H52	2-00-00402	Washer, .750 x .390 x .093	2
H64	2-00-00596	Nut, Hex 1/2 - 13 x .750 x .437	1
H93	2-00-00222	Screw, 1/4-20 x 1.250 HHM	1
H95	2-00-03382	Spring Washer, .875 x .500 x .015	1
H126	2-00-03466	Screw, # 10-16 x .500 TF/RH	1
H149	2-00-01803	Washer Flat, 1.062 x .328 x .062	6
H150	2-00-00211	Screw, 5/16-18 x 1.750 HHC	1
H151	2-00-00213	Screw, 5/16-18 x .625 HHC	6
H244	2-00-05297	Nut, Insert Fiber .38 - 16 Heavy Nut	1

C-0460/9812

CONSOLE ASSEMBLY - EXPLODED VIEW



FILTER SYSTEM - PARTS LIST

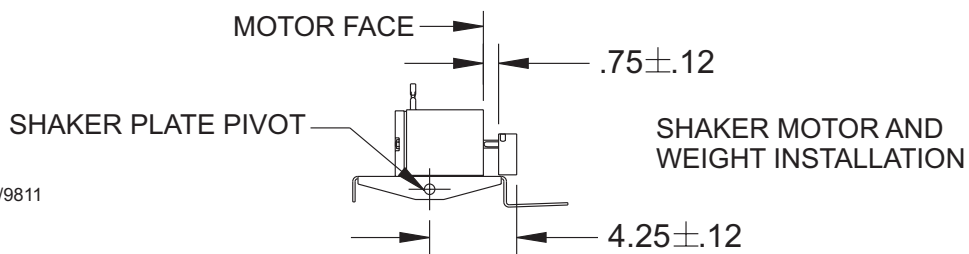
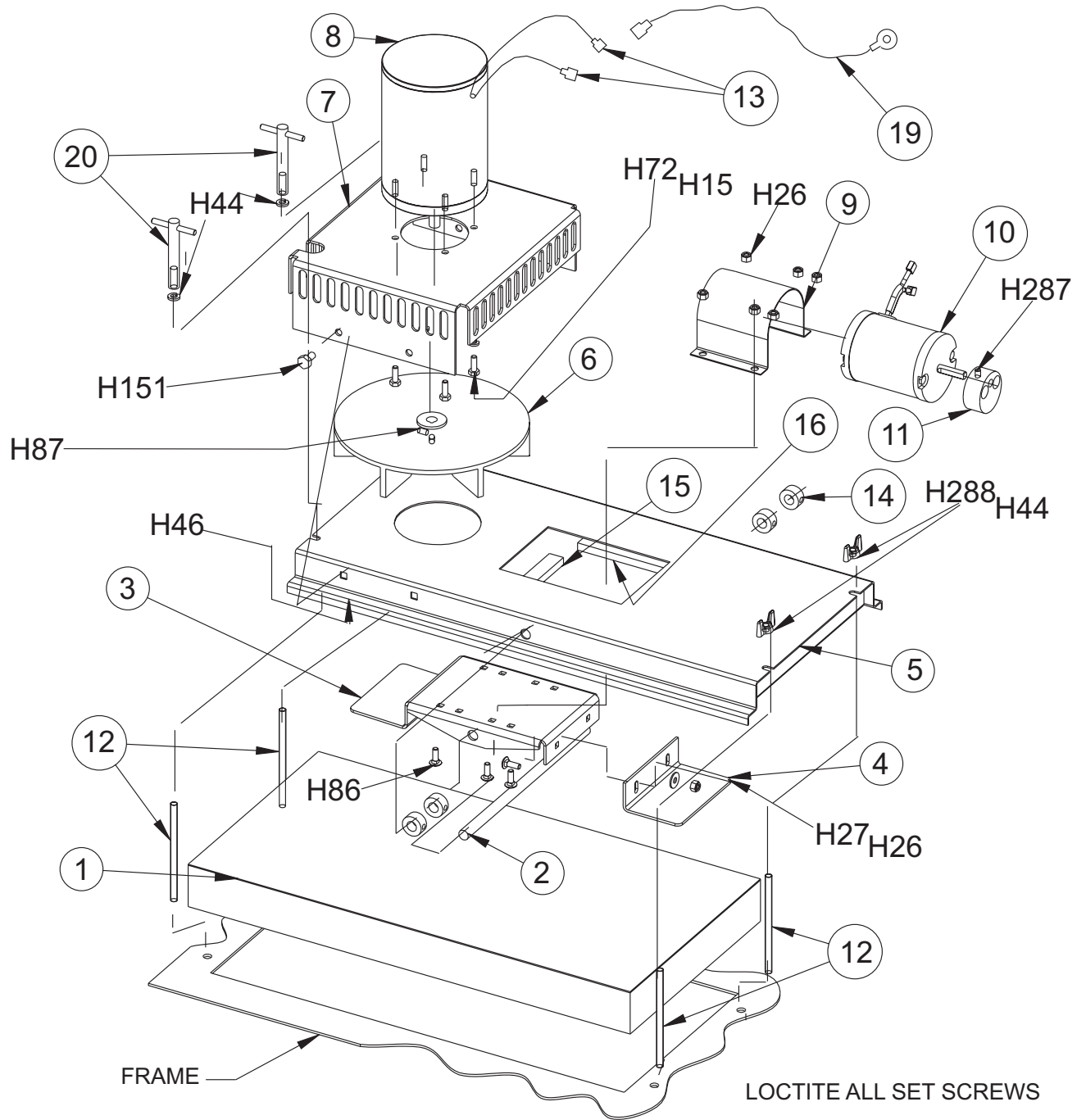
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	8-24-04074-1	Filter	1
2	8-55-08114	Pivot Rod	1
3	7-58-05278	Plate, Shaker Motor	1
4	7-03-04135	Arm, Shaker	1
5	8-48-00019	Impellor Manifold	1
6	8-23-00013	Impellor	1
7	8-08-00796	Bracket, Impellor Motor and Guard	1
8	0882-062	Impellor Motor	1
9	8-16-07406	Shaker Motor Cover	1
10	0860-624	Filter Shaker Motor (36V)	1
11	8-89-04019	Filter Shaker Weight	1
12	8-80-05038	Rod, Threaded 5/16-18	4
13	2-00-05183	Terminals 1/4 FISO (Male)	2
14	8-15-01016	Collar	4
15	8-29-00229	Gasket	2
16	8-29-00228	Gasket	2
17			
18			
19	8-90-07430	Wire	1
20	8-23-03068	Nut - Tee	2

HARDWARE USED:

H15	2-00-00221	Screw, 1/4-20 x .750 HHC	4
H26	2-00-00641	Nut, 1/4-20 Insert Fiber	8
H27	2-00-03702	Washer, .625 x .281 x .063	2
H44	2-00-00530	Flat Washer, 5/16	3
H46	2-00-00644	Nut, 5/16-18 Insert Fiber	4
H72	2-00-00518	Lock Washer, Helical Spring 1/4 Med.	4
H86	2-00-03575	Carriage Bit, 1/4-20 x .750	8
H87	2-00-00263	Set Screw, 1/4-20 x .250 HSKCP	2
H151	2-00-00213	Screw, 5/16-18 x .625 HHC	4
H287	2-00-00264	Set Screw, 1/4-20 x .313 HSKCP	1
H288	2-00-00668	Wing Nut, 5/16-18	2

C-0452/9811

FILTER SYSTEM - EXPLODED VIEW



C0452/9811

DRIVE COMPARTMENT & SEAT - PARTS LIST

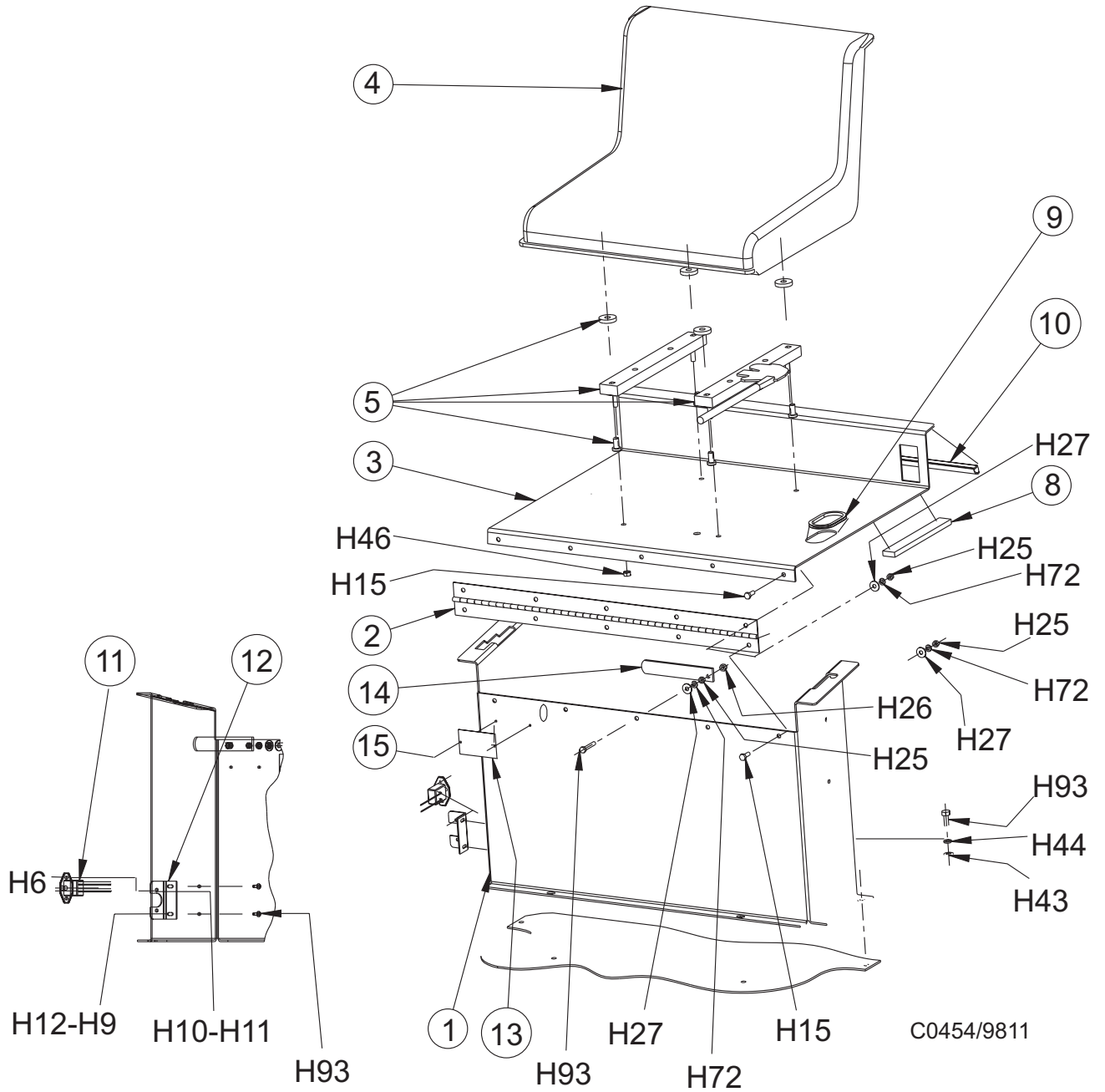
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	8-52-00161	Drive Compartment	1
2	8-32-00045	Hinge	1
3	8-52-00159	Seat Base	1
4	8-69-00020	Seat (575-100)	1
4	8-69-00021	Seat (575-101)	1
5	7-72-05005	Slide Adjuster Kit	1
6			
7			
8	7-50-05151	Seal	2
9	8-21-04050	Edging, Seat Panel	1
10	8-68-05072	Seal	1
11	7-82-00037	Switch, Broom	1
12	8-08-00763	Bracket, Broom Switch	1
13	8-50-00014	Serial Plate	
14	7-03-04114	Bar, Seat Lock	1
15	2-00-04115	Rivet	2

HARDWARE USED:

H6	2-00-00049	Screw, #10-24 x .50 RHM	4
H34	2-00-00208	Screw, 5/16-18 x .750 HHC	4
H15	2-00-00221	Screw, 1/4 - 20 .750 HHC	9
H93	2-00-00222	Screw, 1/4 - 20 x 1.250 HHM	1
H43	2-00-00409	Flat Washer, .687 x .343 x .062	4
H9	2-00-00426	Flat Washer, .500 x .218 x .062	2
H72	2-00-00518	Lock Washer, Helical Spring 1/4 Med.	10
H10	2-00-00519	Lock Washer, #10 Med.	2
H44	2-00-00530	Lock Washer, 5/16 HS Med.	4
H25	2-00-00594	Nut, Hex 1/4-20 x .437 x .218	10
H11	2-00-00605	Nut, Hex #10-24 MS	2
H26	2-00-00641	Nut, 1/4-20 Insert Fiber	1
H46	2-00-00644	Nut Fiber Insert, 5/16 - 18	4
H12	2-00-01246	Nut Fiber Insert #10-24	2
H27	2-00-03702	Washer, .625 x .281 x .063	10

C-0454/9812

DRIVE COMPARTMENT & SEAT - EXPLODED VIEW



STEERING & DRIVE - PARTS LIST

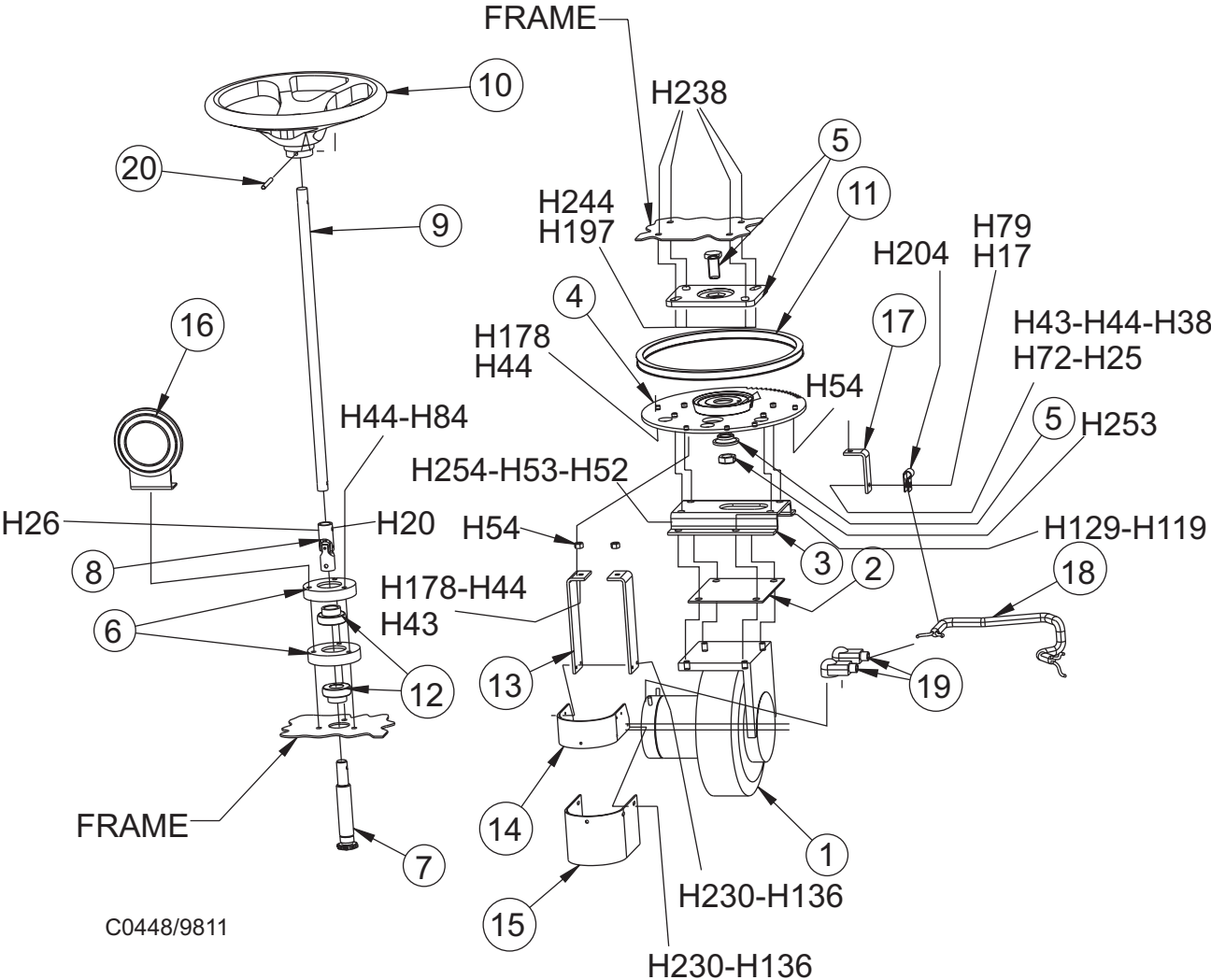
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	0885-081	Wheel and Drive Motor	1
2	8-58-05272	Plate, Drive Wheel Mounting	1
3	8-58-05268	Bracket, Drive Wheel Mounting	1
4	8-57-05022	Sprocket	1
5	7-57-05032	Pivot Caster	1
6	7-25-06031	Flange, Steering Mount	2
7	7-70-05158	Steering Shaft	1
8	7-37-00001	Universal Joint	1
9	8-70-05292	Shaft, Steering Wheel	1
10	7-89-08083	Steering Wheel	1
11	7-13-05065	Steering Chain	1
12	2-00-05159	Bearing, 1.000	2
13	8-81-00167	Support, Wheel Guard	2
14	8-30-05160	Wheel Guard	1
15	8-25-08192	Flap	1
16	8-32-09008	Horn	1
17	8-31-07013	Hanger	1
18	8-90-07431	Wire assy.	Ref.
19	2-00-04203	Boots, Terminal	2
20	2-00-00868	Roll Pin, .25 x 2.250	1

HARDWARE USED:

H17	2-00-00205	Screw, 1/4-20 x1.00	1
H20	2-00-00203	Screw, 1/4-20 x 1.750 HHC	2
H25	2-00-00594	Nut, Hex 1/4 - 20 x .437 x .218	1
H26	2-00-00641	Nut, 1/4-20 Insert Fiber	2
H38	2-00-00225	Screw, 5/16-18 x 1.50 HHC	1
H43	2-00-00409	Flat Washer, .687 x .344 x .062	3
H44	2-00-00530	Lock Washer, 5/16 HS Med.	7
H52	2-00-00402	Washer, .750 x .390 x .093	1
H53	2-00-02310	Lock Washer, Helical Spring 3/8 Med.	4
H54	2-00-02360	Nut, 3/8-16 Hex	3
H72	2-00-00518	Lock Washer, Helical Spring	1
H79	2-00-01676	Flat Washer, .750 x .265 x .062	1
H84	2-00-00228	Screw, 5/16-18 x 2.250 HHC	3
H119	2-00-05005	Screw, #10 x 1.5 30 mm HHC	4
H129	2-00-02311	Lock Washer, 7/16 Split, Cadmium Plated	4
H136	2-00-03940	Screw, #10-24 x .500 MMTF	9
H151	2-00-00213	Screw, 5/16-18 x .625 HHC	2
H178	2-00-00206	Screw, 5/16-18 x 1.00	3
H197	2-00-03979	Flat Washer, 1.000 x .390 x .062	4
H204	2-00-04873	Clamp	1
H230	2-00-00466	Flat Washer, # 10 SS	9
H238	2-00-03750	Carriage Bolt, 3/8-16 x 1.500	4
H244	2-00-05297	Nut, 3/8-16 Stop	4
H253	2-00-05120	Nut, 3/4 Hex. Nylock Jam	1
H254	2-00-04625	Screw	4

C-0448/9812

STEERING & DRIVE - EXPLODED VIEW



C0448/9811

WHEEL LOCK - PARTS LIST

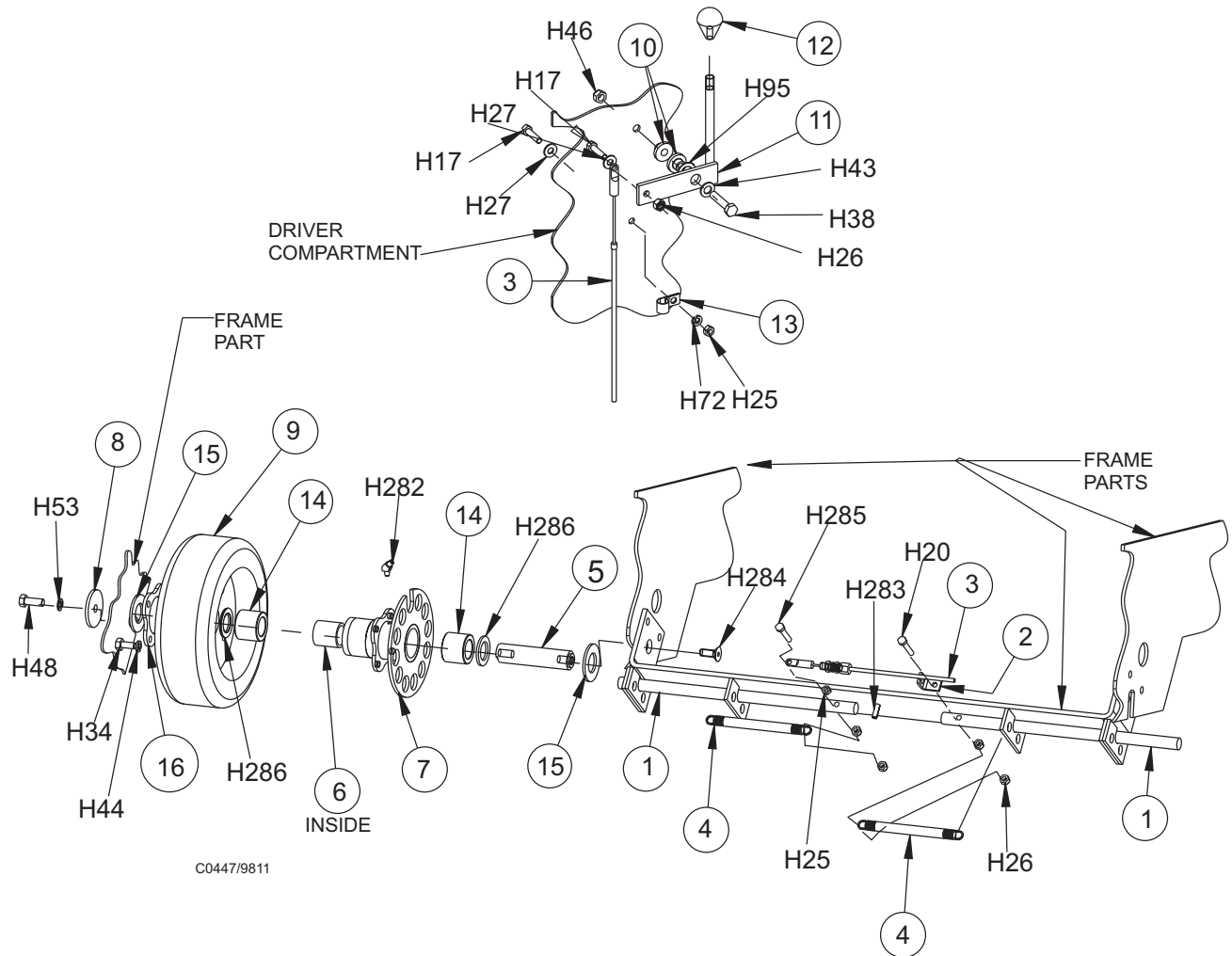
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	8-55-08130	Wheel Lock Rod	2
2	8-08-00771	Bracket	1
3	8-10-00035	Cable	1
4	7-76-00102	Spring	2
5	8-03-09024	Axle	2
6	8-75-01196	Spacer	2
7	8-33-09087	Hub Assembly	2
8	2-95-04689	Flat Washer	2
9	0797-041	Wheel Assembly (Ultraseal)	2
10	7-09-01057	Bushing	2
11	8-41-05080	Lever Wheel Lock	1
12	7-39-00017	Knob	1
13	2-00-05394	Clamp	2
14	2-00-05226	Bearing	4
15	2-00-05024	Washer	4
16	8-25-06011	Flange Rim	2

HARDWARE USED:

H20	2-00-00203	Screw, 1/4-20 x 1.750 HHC	1
H17	2-00-00205	Screw, 1/4-20 x 1.00	2
H34	2-00-00208	Screw, 5/16-18 x 1.25 HHC	10
H38	2-00-00225	Screw, 5/16-18 x 1.50 HHC	1
H48	2-00-00233	Screw, 3/8-16 x 1.000 HHC	2
H43	2-00-00409	Washer .687 x .343 x .062	1
H72	2-00-00518	Lock Washer 1/4 Med. Helical Spring	1
H44	2-00-00530	Lock Washer, 5/16 HS Med.	8
H25	2-00-00594	Nut Hex, 1/4-20 x .437 x .218	2
H26	2-00-00641	Nut, 1/4-20 Insert Fiber	5
H46	2-00-00644	Nut Hex 5/16-18 Fiber Insert	1
H53	2-00-02310	Lock Washer, 3/8 HS Med.	2
H282	2-00-02562	Fitting	2
H95	2-00-03382	Spring Washer, .875 x .500 x .015	1
H27	2-00-03702	Washer, .625 x .281 x .063	2
H283	2-00-03842	Roll Pin, 1/4 x 1.000 LG.	1
H284	2-00-04845	Screw, 3/8-16 x 1.00 FHSC	2
H285	2-00-05135	Screw, 1/4-20 x 1.50 HHC	1
H286	2-00-05383	Washer	2

C-0447/9811

WHEEL LOCK - EXPLODED VIEW



POWER PANEL - PARTS LIST

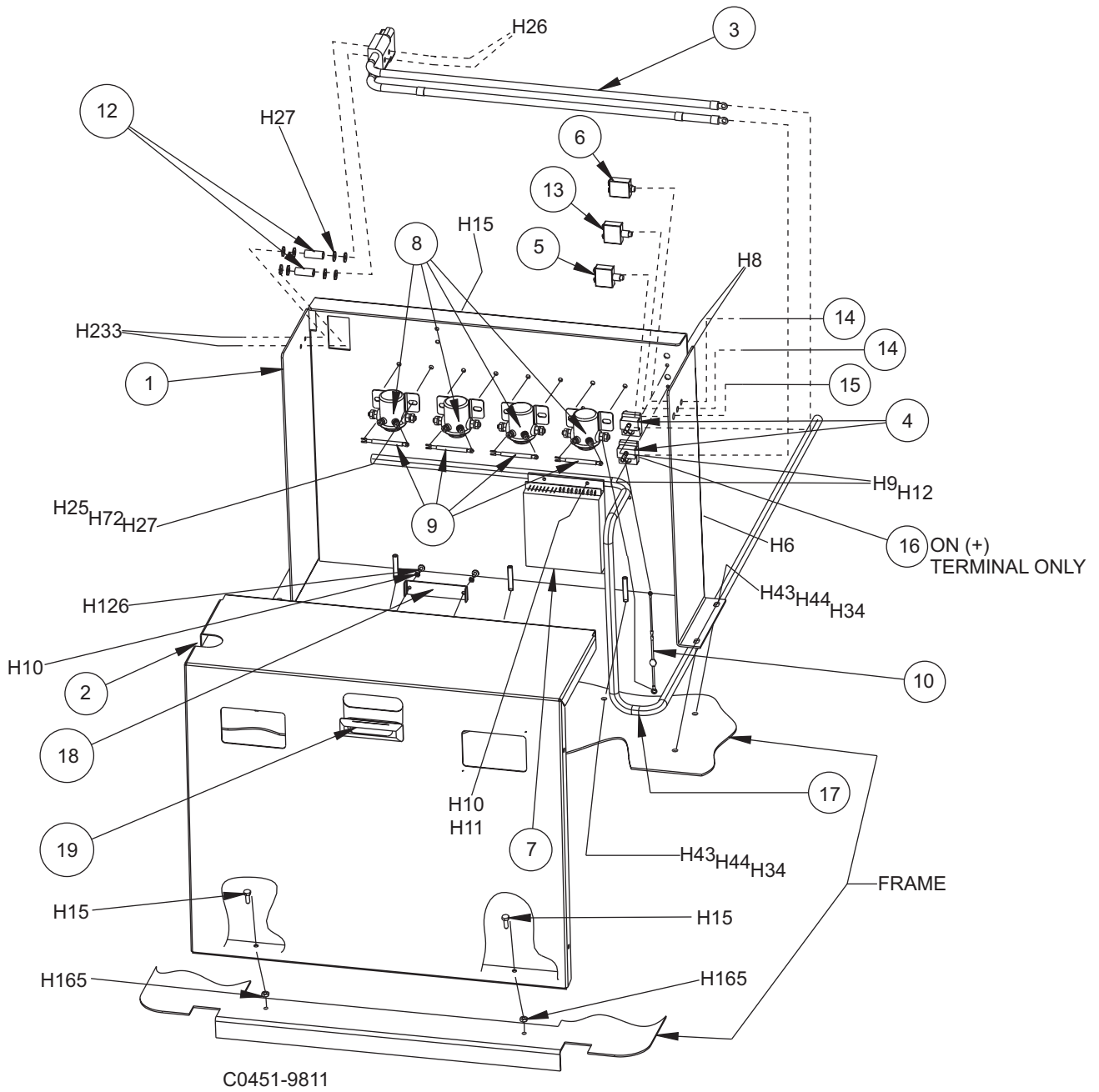
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	8-52-00164	Panel	1
2	8-52-00160	Cover	1
3	0875-101	Power Cable	1
4	8-06-05004	standoff	2
5	7-64-00025	Circuit Breaker (25 amp)	1
6	7-64-00022	Circuit Breaker (20 amp)	1
7	0782-127	Controller	1
8	2-00-04825	Solenoids	4
9	0775-159	Diode Assembly	4
10	8-90-07429	Diode Assembly	1
11			
12	7-09-01046	Spacers	2
13	7-28-00001	Circuit Breaker (35 amp)	1
14	8-11-00044	Boot, CB	2
15	8-11-00051	Boot, CB	2
16	2-00-04952	Boot, Red	1
17	0895-107	Wire - Harness	1
18	8-79-00098	Bracket - Handle	1
19	8-31-06078	Handle	1

HARDWARE USED:

H8	2-00-00039	Screw, 10-24 x 1.000 RHM	2
H6	2-00-00049	Screw, # 10-24 x .500 RHM	4
H34	2-00-00208	Screw, 5/16-18 x .750 HHC	4
H15	2-00-00221	Screw, 1/4-20 x .750 HHC	10
H43	2-00-00409	Washer, .687 x .343 x .062	7
H9	2-00-00426	Flat Washer, .500 x .219 x .063	2
H72	2-00-00518	Lock Washer, Helical Spring	8
H10	2-00-00519	Lock Washer, # 10 Med HS	6
H44	2-00-00530	Lock Washer, 5/16 HS Med.	7
H45	2-00-00585	Nut, Hex. 5/16-18 x .500 x .265	3
H165	2-00-00589	Nut, Hex Jam 1/4-20 x .437 x .156	2
H25	2-00-00594	Nut, Hex 1/4-20 x .437 x .218	8
H11	2-00-00605	Nut, Hex MS # 10-24 x .375 x .125	4
H26	2-00-00641	Nut, 1/4-20 Insert Fiber	2
H12	2-00-01246	Nut, Hex Fiber Insert #10-24	2
H233	2-00-02638	Screw, 1/4-20 x 3.000 HHC	2
H27	2-00-03702	Washer, .625 x .281 x .0631	8

C0451/9811

POWER PANEL - EXPLODED VIEW

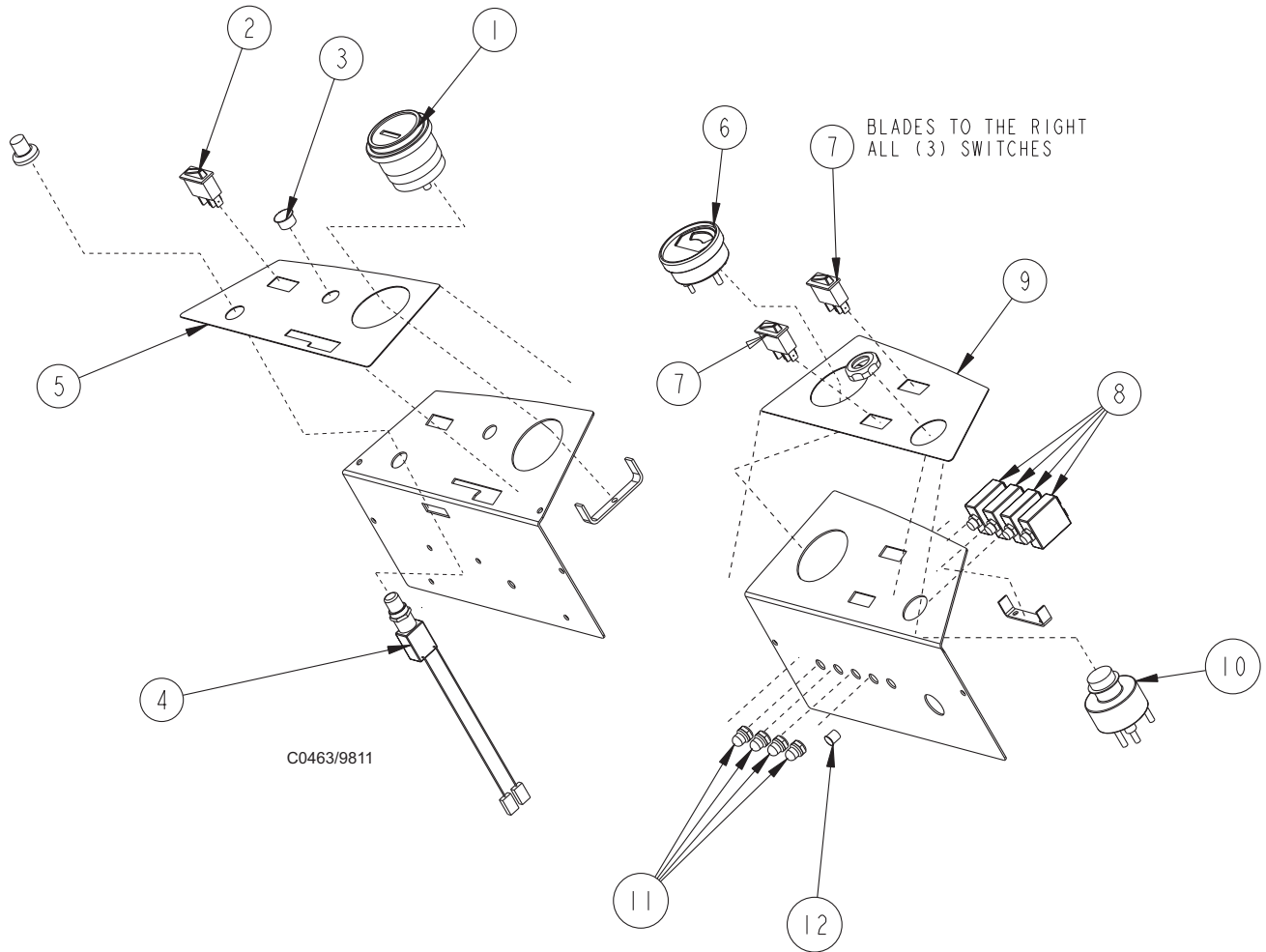


INSTRUMENT PANEL - PARTS LIST

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	8-48-05023	Hour Meter	1
2	8-82-00045	Momentary Switch	1
3	2-00-04514	Plug, Hole	1
4	8-82-00030	Switch	1
5	8-18-00389	Decal, Instrument Panel	1
6	7-48-05024	Battery Condition Meter	1
7	8-82-00044	Switch	2
8	8-64-00007	Circuit Breaker, 10 amp	4
9	8-18-00388	Decal, Instrument Panel	1
10	8-82-00041	Switch	1
11	8-11-00044	Boot	4
12	2-00-04757	Plug, Hole	4

C-0463/9811

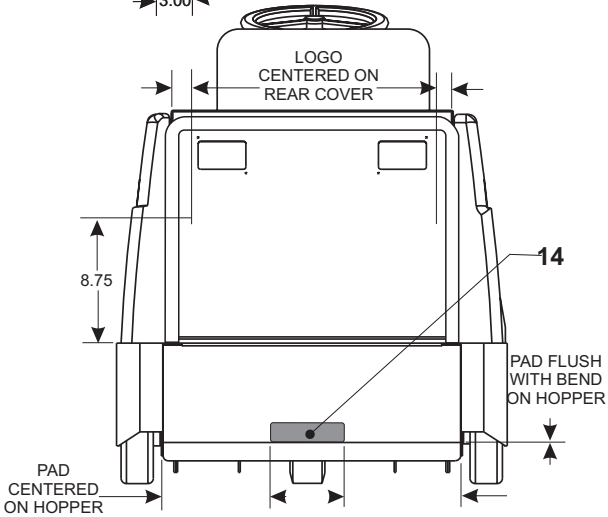
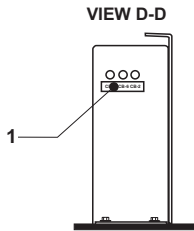
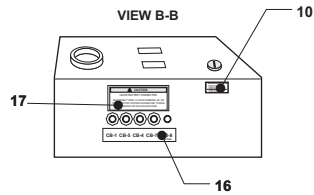
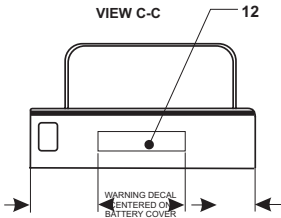
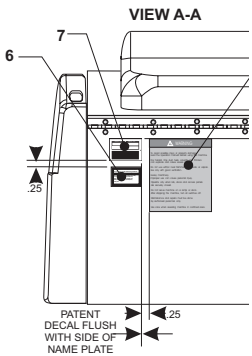
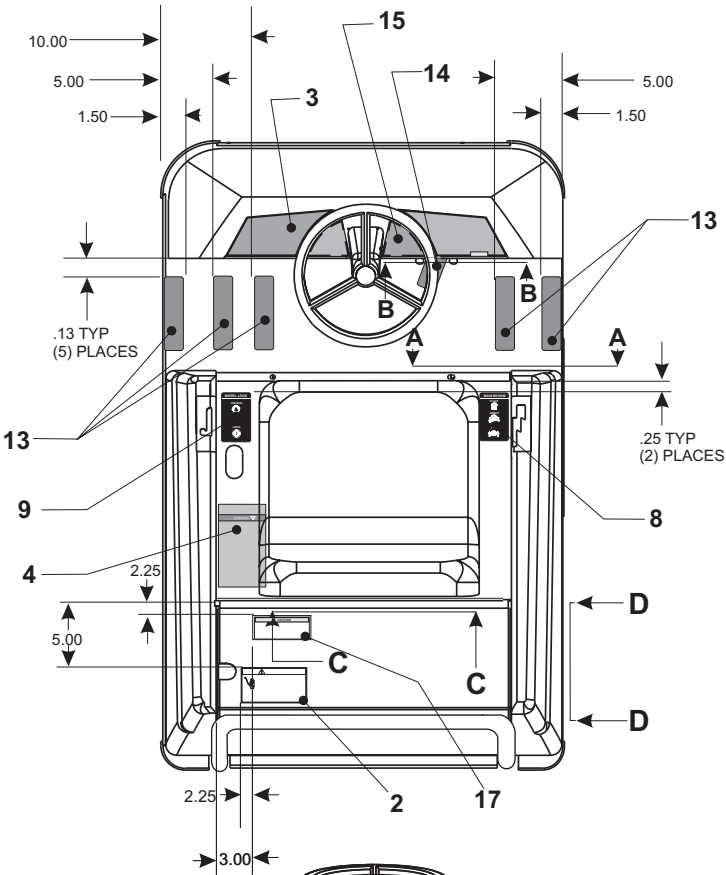
INSTRUMENT PANEL - EXPLODED VIEW



DECALS - PARTS LIST

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	8-18-00394	Decal, C/B Power Panel	1
2	7-18-00227	Decal, Electrical Hazard	1
3	8-18-00389	Decal, Left Side Dash	Ref.
4	7-18-00143	Decal, Battery Charging	1
5	8-18-00396	Decal, General Hazard	1
6	7-18-00228	Decal, Patent	1
7	8-50-00014	Name, Plate - Amercan-Lincoln	1
8	7-18-00230	Decal, Main Broom	1
9	7-18-00229	Decal, Wheel Lock	1
10	8-18-00391	Decal, Key/Wheel Lock	1
11			
12	8-18-00392	Decal, Pinch Point	1
13	8-50-05022	Pad, Non-Skid	5
14	8-50-05055	Pad, Non-Skid	2
15	8-18-00388	Decal, Right Side Dash	Ref.
16	8-18-00393	Decal, C/B Dash Panel	1
17	8-18-00447	Decal, Caution (Wire 14)	2

C0476/9812



C0476/9812

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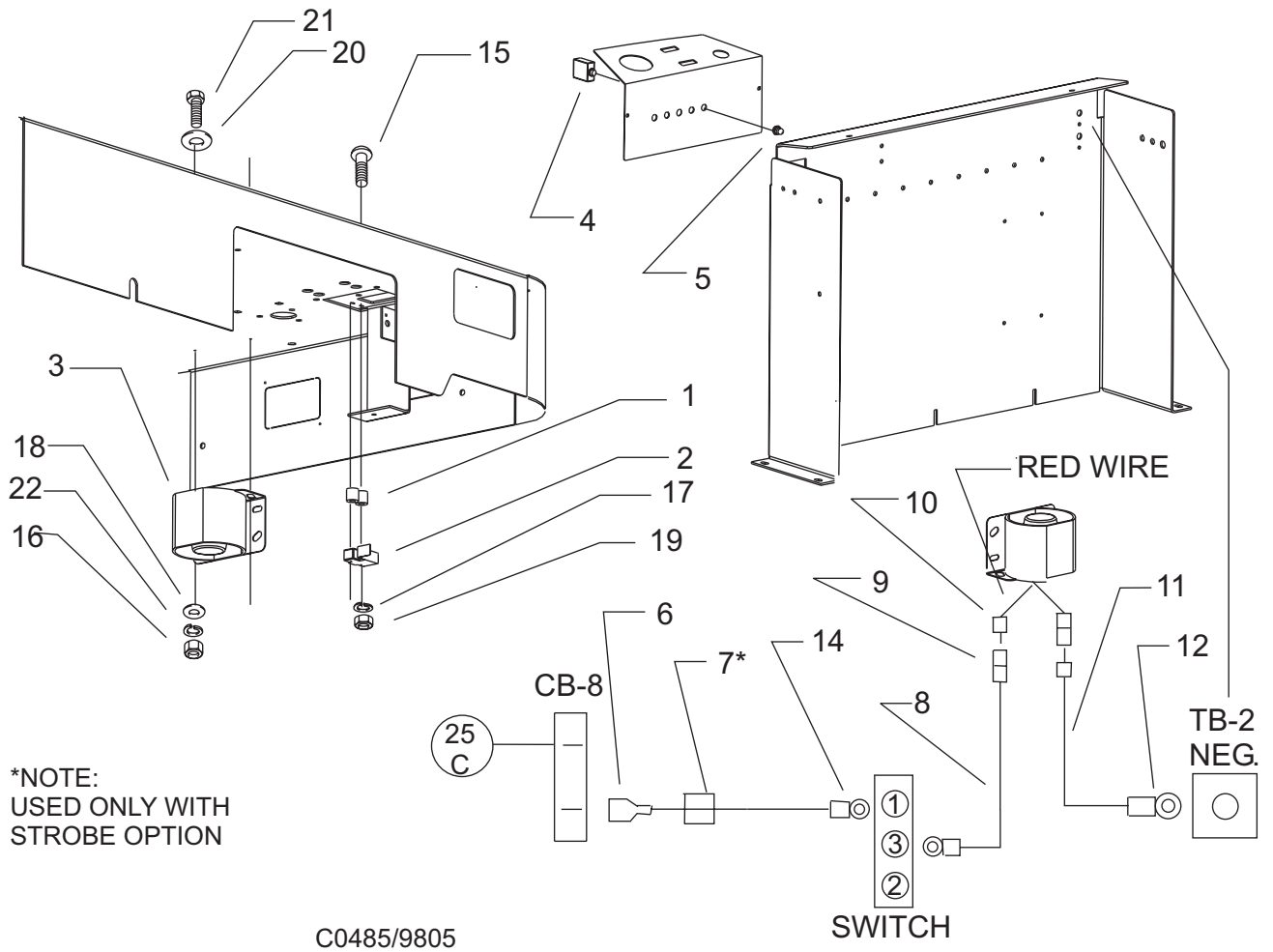
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BACK-UP ALARM - PARTS LIST

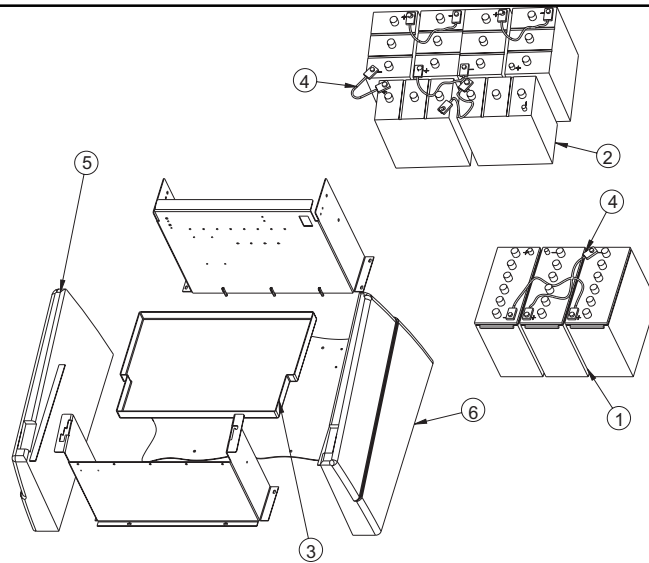
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	8-75-01120	Spacer	2
2	7-82-00023	Switch	1
3	8-32-09009	Back-Up Alarm	1
4	8-64-00007	Circuit Breaker, 10 amp	1
5	8-11-00044	Boot	1
6	2-00-03418	Terminal	1
7	2-00-04479	Connector, 3-Way	1
8	3-61-00193	Wire, 16 ga. Red	6'
9	2-00-04626	Terminal, Female Bullet	2
10	2-00-04578	Terminal, Male Bullet	2
11	3-61-00189	Wire, 16 ga. Black	8'
12	2-00-04282	Terminal Ring	1
13	2-00-04345	Tye Raps	10
14	2-00-04742	Terminal Ring	2
15	2-00-00221	Screw, 1/4-20 x .750 HHC	2
16	2-00-00594	Nut, Hex 1/4-20 x .437 x .218	2
17	2-00-01490	Screw, 1/4-20 x .875 HHC	2
18	2-00-03702	Washer, .625 x .281 x .063	2
19	2-00-00624	Nut, #6-32 Hex	2
20	2-00-00455	Flat Washer, .375 x .156 x .047	2
21	2-00-05063	Screw, #6-32 x 2.000 Lg. RHM	2
22	2-00-00518	Lock Washer, Helical Spring	2

C0485

BACK-UP ALARM - EXPLODED VIEW



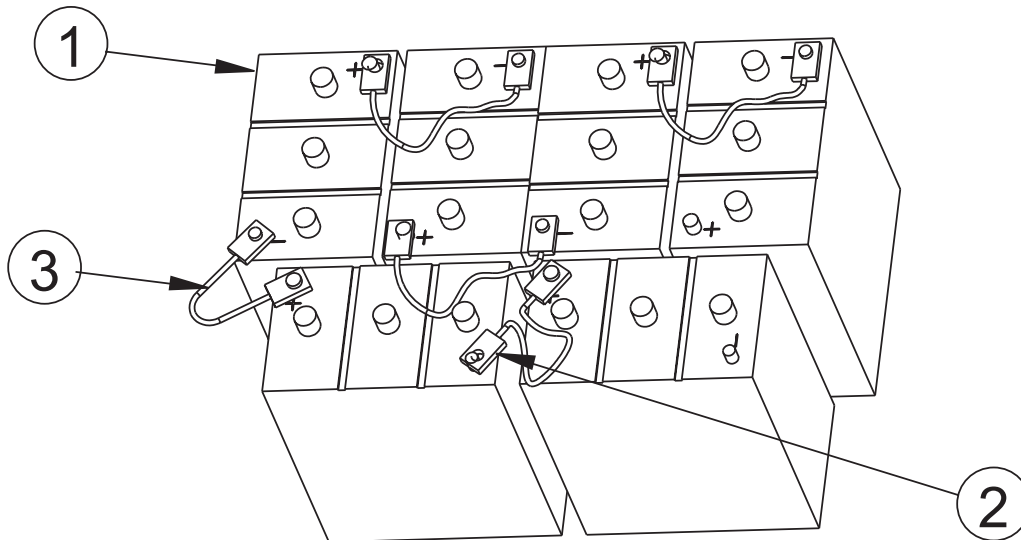
BATTERY OPTION



C455a/9811

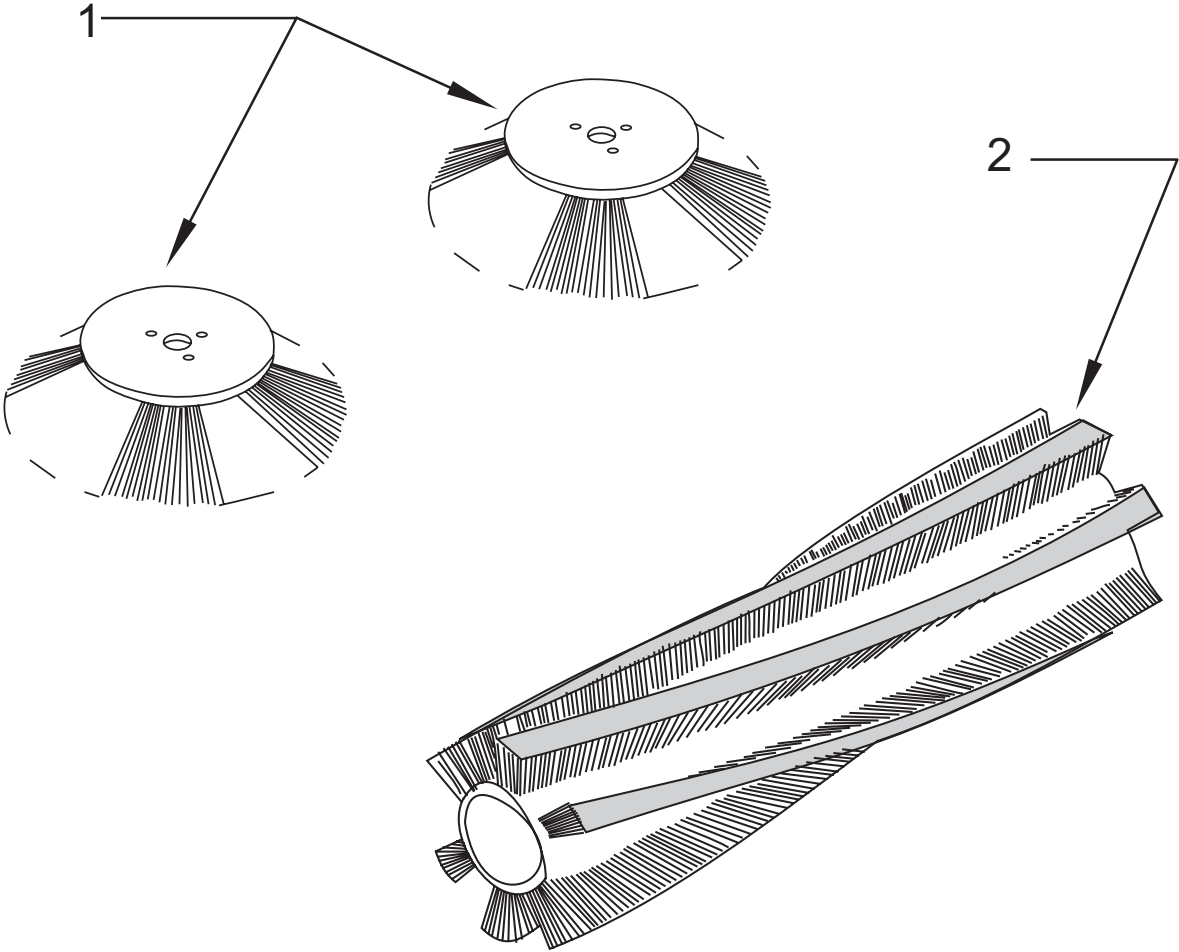
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	0875-105	Battery (12 Volt)	3
1	0875-106	Battery (12 Volt Dry)	-
3	0875-102	Connector Assembly	1
4	7-90-07286	Battery Connectors	2
5	7-75-01142	Battery Spacer	1

C455a/9811



<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	0875-103	Battery (6 Volt Wet)	6
1	0875-104	Battery (6Volt Dry)	-
2	0875-102	Connector Assembly	1
3	7-90-07286	Battery Connectors	5

C455c/9811

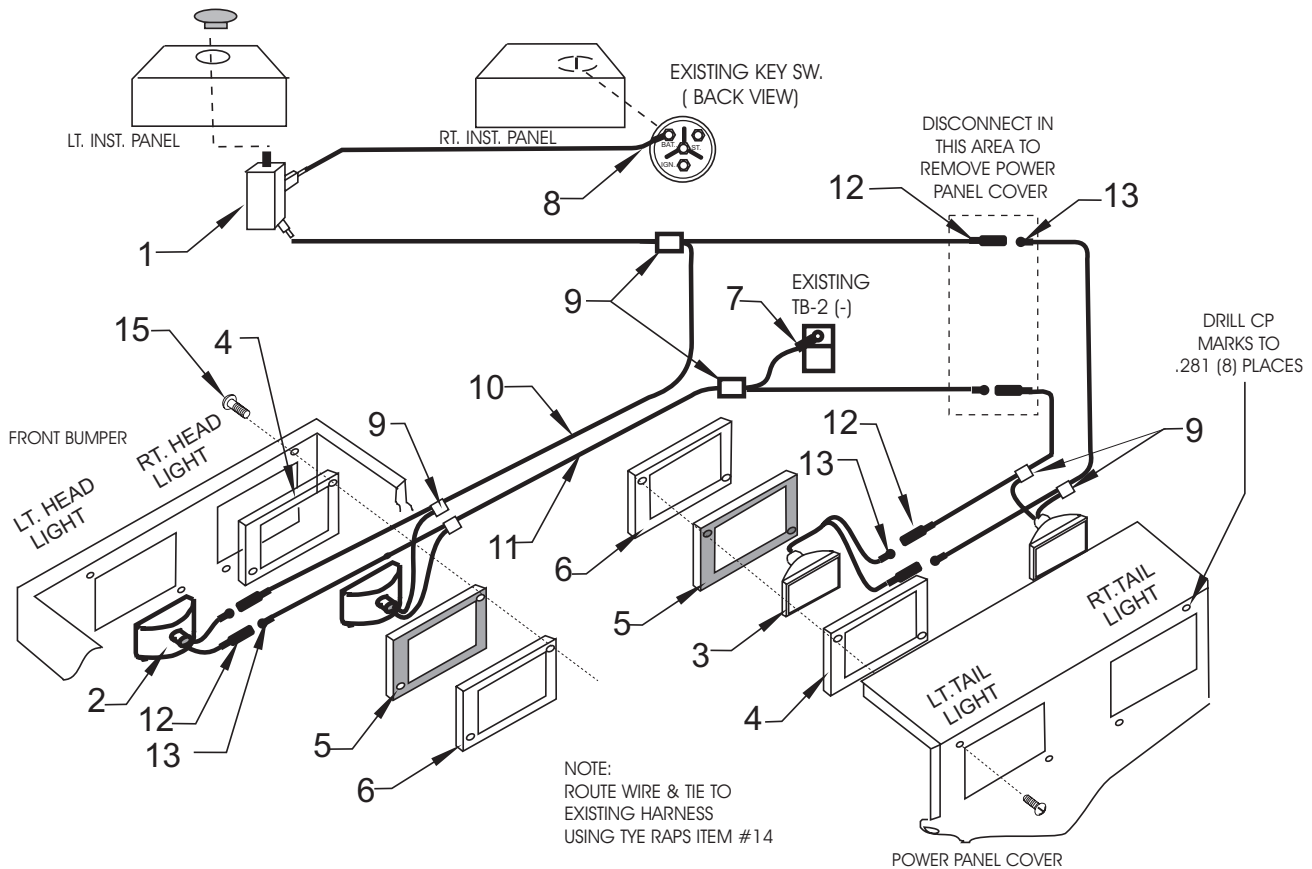


C0486

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	8-08-03215	Side Broom, Poly	2
1	8-08-03231	Side Broom, Nylon	2
2	8-08-03216	Main Broom, Proex	1
2	8-08-03222	Main Broom, Nylon	1
2	8-08-03223	Main Broom, Hi Density Nylon	1
2	8-08-03230	Main Broom, Proex and Wire	1

C0486

HEAD & TAILLIGHT OPTION

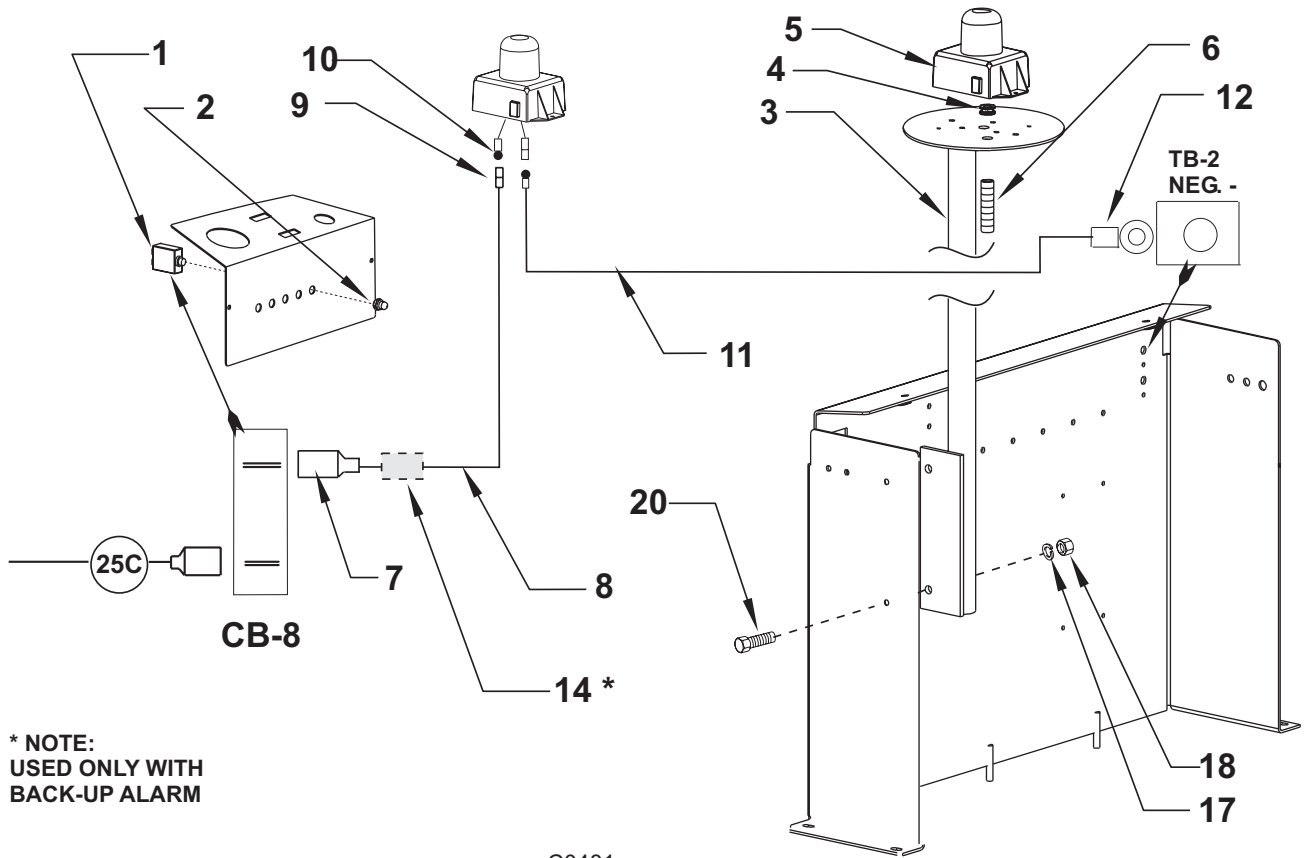


C0482

KEY NO.	PART NUMBER	DESCRIPTION	QTY
1	8-82-00027	Light Switch	1
2	7-40-05031	Head Light	2
3	7-40-05032	Tail Light	2
4	7-08-00557	Bracket	4
5	7-29-00174	Bracket	4
6	7-08-00790	Bracket	4
7	2-00-04282	Terminal, Ring	1
8	2-00-04281	Terminal, #10	1
9	2-00-04479	Connector, 3-Way	6
10	3-61-00193	Wire, 16 ga. Red	15'
11	3-61-00189	Wire, 16ga. Black	15'
12	2-00-04626	Terminal, .156 Female Bullet	6
13	2-00-04578	Terminal, .156 Male Bullet	6
14	2-00-04345	Tye Raps	10
15	2-00-00203	Screw, 1/4-20 x 1.500 HHC	8

C0482

AMBER STROBE LIGHT OPTION

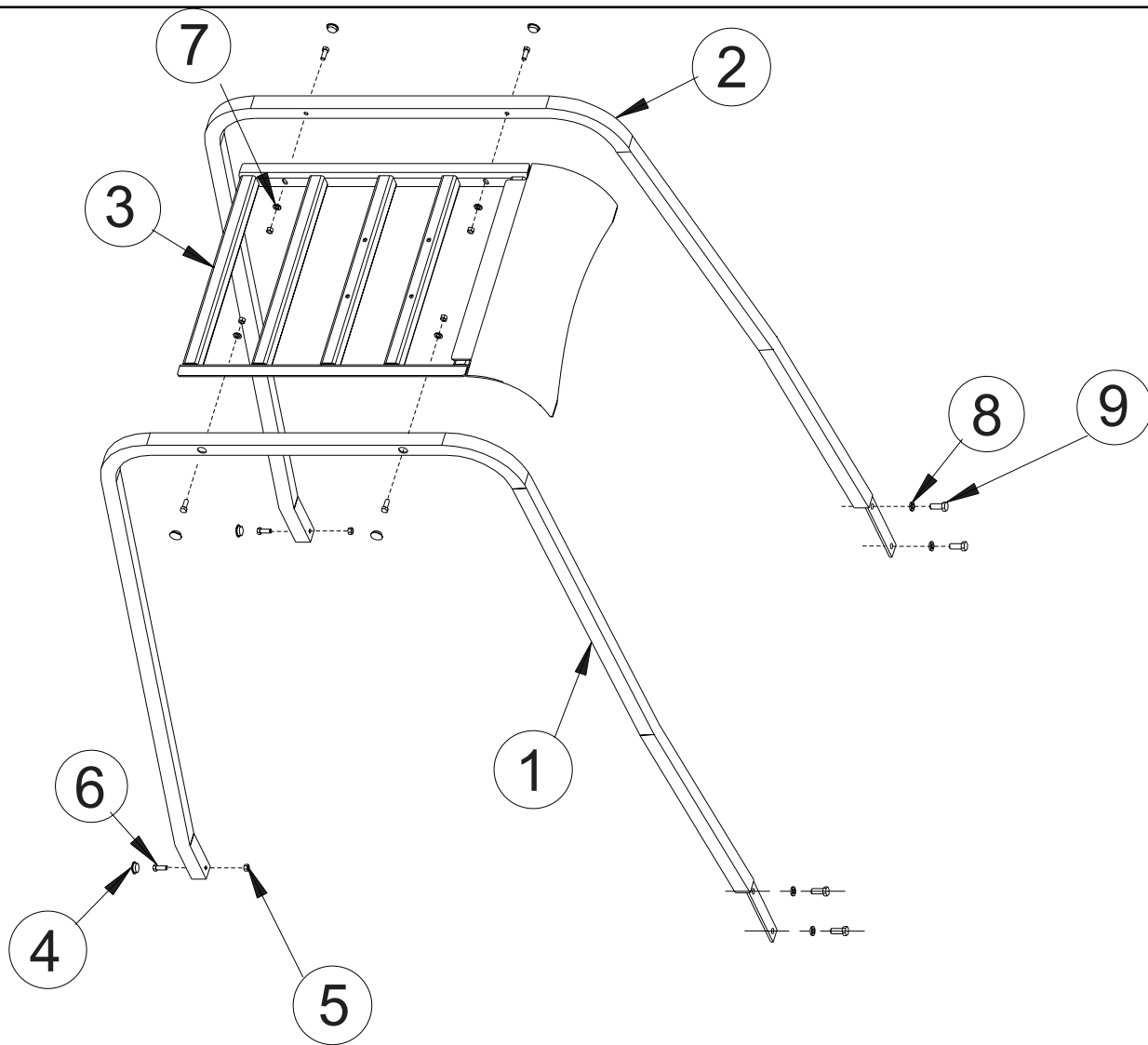


C0481

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	8-64-00007	Circuit Breaker, 10 Amp	1
2	8-11-00044	Boot	1
3	8-81-00169	Support, Warning Light	1
4	2-00-00491	Grommet	1
5	8-40-05036 8-40-05020	Strobe Light, Amber Strobe Light, Red	1 Ref.
6	3-61-02014	Black Loom	1'
7	2-00-03418	Connector	1
8	3-61-00193	Wire, 16 ga. Red	15'
9	2-00-04626	Terminal, Female Bullet	2
10	2-00-04578	Terminal, Male Bullet	2
11	3-61-00189	Wire, 16 ga. Black	5'
12	2-00-04282	Terminal	1
13	2-00-04345	Tye Raps	10
14	2-00-04479	Connector, 3-Way	1
15	2-00-00512	Lock Washer, # 10 INT.	
16	2-00-00605	Nut, Hex MS # 10-24 x .375 x .125	2
17	2-00-02310	Lock Washer, Helical Spring 3/8 Med.	2
18	2-00-02360	Nut, 3/8-16 Hex.	2
19	2-00-03061	Screw, #10-24 x .500 THM	2
20	2-00-00223	Screw, 1/4-20 x 1.250 HHC	2

C0481/9403

OVERHEAD GUARD OPTION

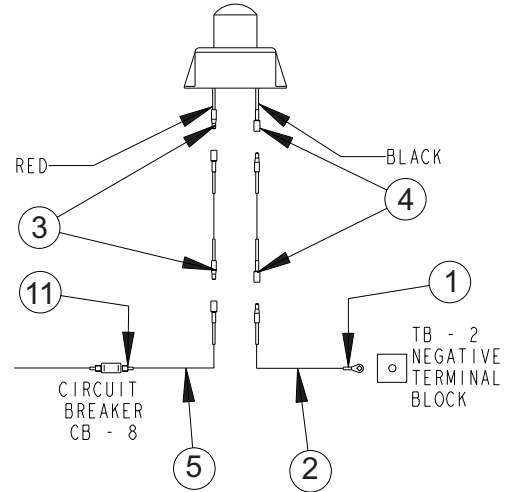
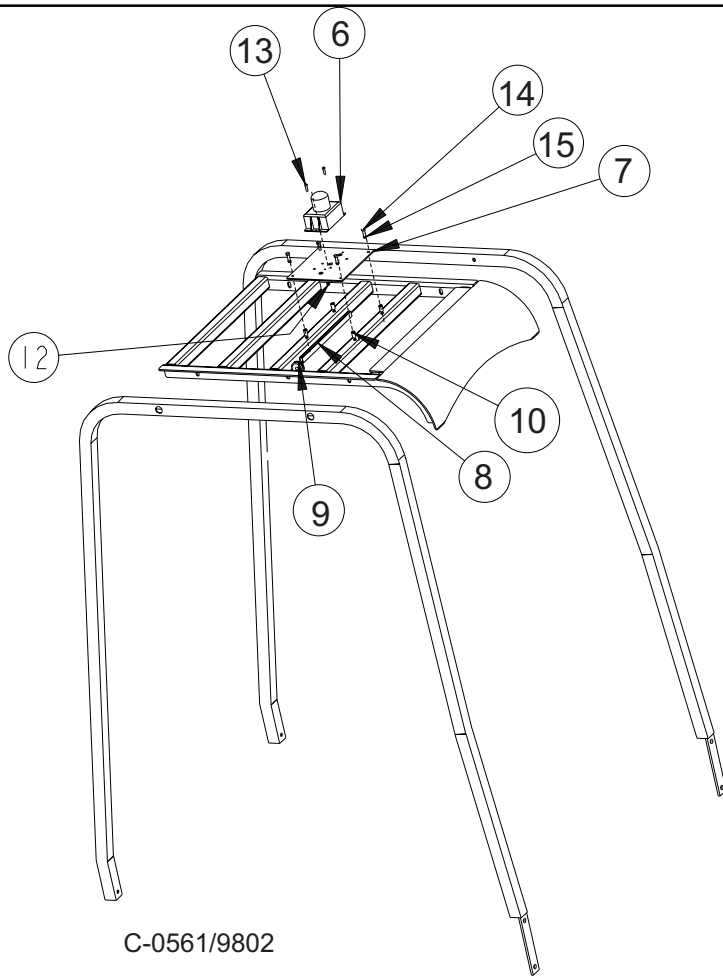


C-0560/9802

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	8-30-05162	Leg, L.H.	1
2	8-30-05161	Lg, R.H.	1
3	8-30-05174	Overhead Guard Top Weld	1
4	2-00-05134	Plug Button	6
5	2-95-04182	Fiber Nut	6
6	2-00-00233	Screw, 3/8-16 x 1.000 HHC	6
7	2-00-00402	Flat Washer, .750 x .390 x .094	4
8	2-00-02312	Lock Washer, 1/2 HS Med.	4
9	2-00-00240	Screw, 1/2-13 x 1.250 HHC	4

C-0560

STROBE LIGHT OPTION FOR OVERHEAD GUARD

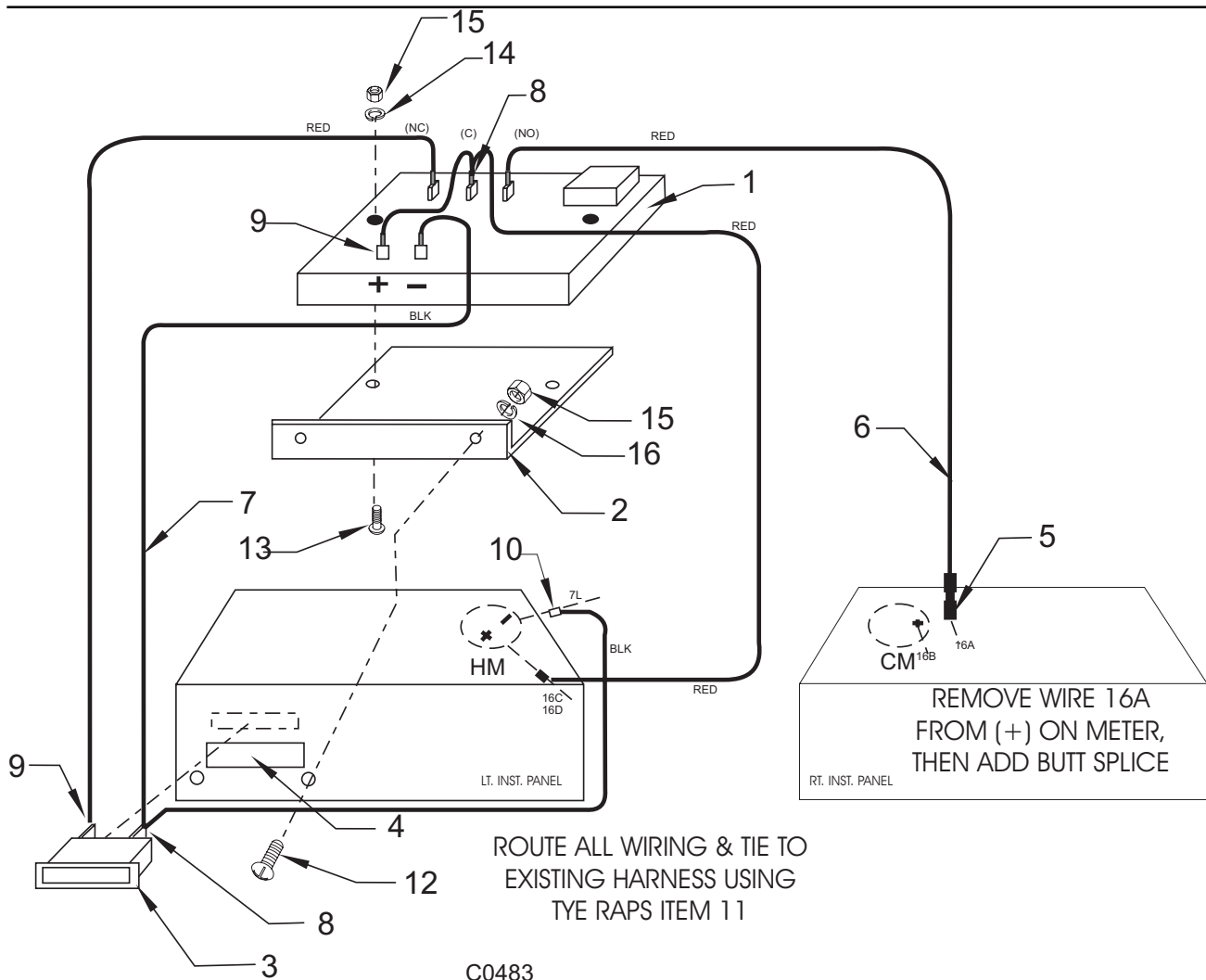


<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	2-00-04282	Terminal	1
2	3-61-00189	Wire, #16 AWG. (Black)	12'
3	2-00-04578	Terminal, Male Bullet	4
4	2-00-04626	Terminal, Female Bullet	4
5	3-61-00193	Wire, #16 AWG. (Red)	12'
6	8-40-05036	Strobe Light, Amber	1
*	8-58-05020	Strobe Light, Red	-
7	8-58-05228	Panel Light Support	1
8	8-20-06036	Duct, Wire Strip	1
9	2-00-01915	Grommet	1
10	2-00-05261	Threaded Insert	4
11	2-00-03418	Connector	1
12	2-00-01246	Nut, Hex Fiber Insert #10-24	2
13	2-00-03063	Screw, #10-24 x .750 THM	2
14	2-00-00205	Screw, 1/4-20 x 1.000 HHC	4
15	2-00-00518	Lock Washer, Helical Spring	4

‘ Use for Amber Strobe Light Option 0880-588

* Use for Red Strobe Light Option 0880-589

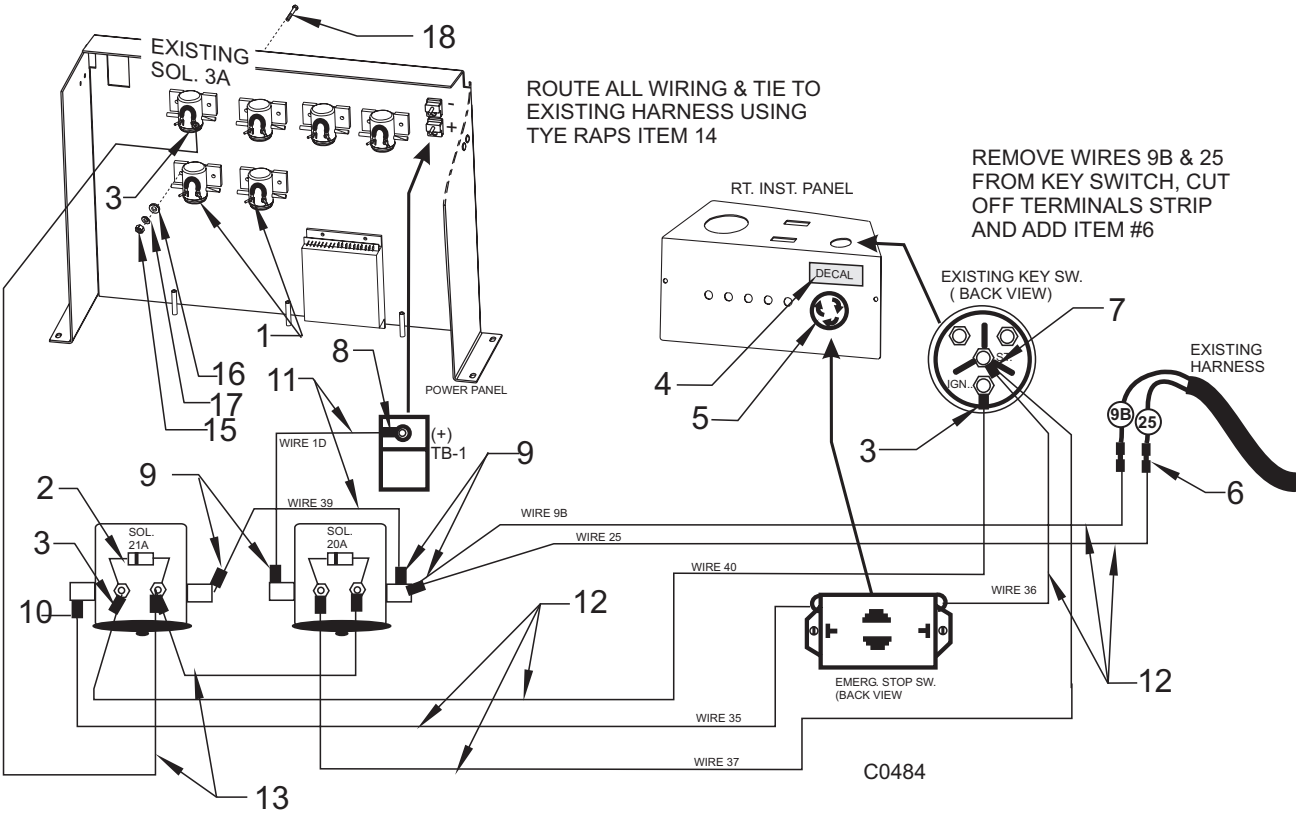
LOW BATTERY SHUTDOWN OPTION



KEY NO.	PART NUMBER	DESCRIPTION	QTY
1	7-64-00023	Solid State Module	1
2	8-08-00748	Bracket	1
3	7-40-05030	Light, 32 volt	1
4	8-18-00390	Decal	1
5	2-00-01128	Butt Splice	1
6	3-61-00193	Wire, 16 ga. Red	15'
7	3-61-00189	Wire, 16 ga. Black	2'
8	2-00-04708	.250 FISO 10-12 ga.	2
9	2-00-03418	.250 FISO 14-16 ga.	5
10	2-00-04479	Connector, 3-Way 14 ga.	2
11	2-00-04345	Tye Raps	10
12	2-00-03059	Screw, #10-24 x .375 THM	2
13	2-00-00039	Screw, 10-24 x 1.000 RHM	2
14	2-00-00519	Lock Washer, # 10 Med HS	2
15	2-00-00605	Nut, Hex MS # 10-24 x .375 x .125	4
16	2-00-00512	Lock Washer, # 10 INT.	2

C-0483/9403

EMERGENCY STOP OPTION



KEY NO.	PART NUMBER	DESCRIPTION	QTY
1	2-00-04825	Solenoid	2
2	0775-159	Diode Assembly	2
3	2-00-04719	Terminal, #10 Spring Spade	7
4	7-18-00191	Decal	1
5	7-82-00034	Emergency Stop Switch	1
6	2-00-01128	Butt Splice, 14-16 ga.	2
7	2-00-04716	Terminal, #10 Spring Spade	1
8	2-00-04859	Terminal, .250 Ring	1
9	2-00-04284	Terminal, .310 Ring	4
10	2-00-04282	Terminal, .310 Ring	1
11	3-61-00095	Wire, 12 ga. Red	3'
12	3-61-00193	Wire, 16 ga. Red	20'
13	3-61-00189	Wire, 16 ga. Black	2'
14	2-00-04345	Tye Raps	10
15	2-00-00594	Nut, Hex 1/4-20 x .437 x .218	4
16	2-00-03702	Washer, .625 x .281 x .063	4
17	2-00-00518	Lock Washer, Helical Spring	4
18	2-00-00078	Screw, 1/4-20 x .625 RHM	4

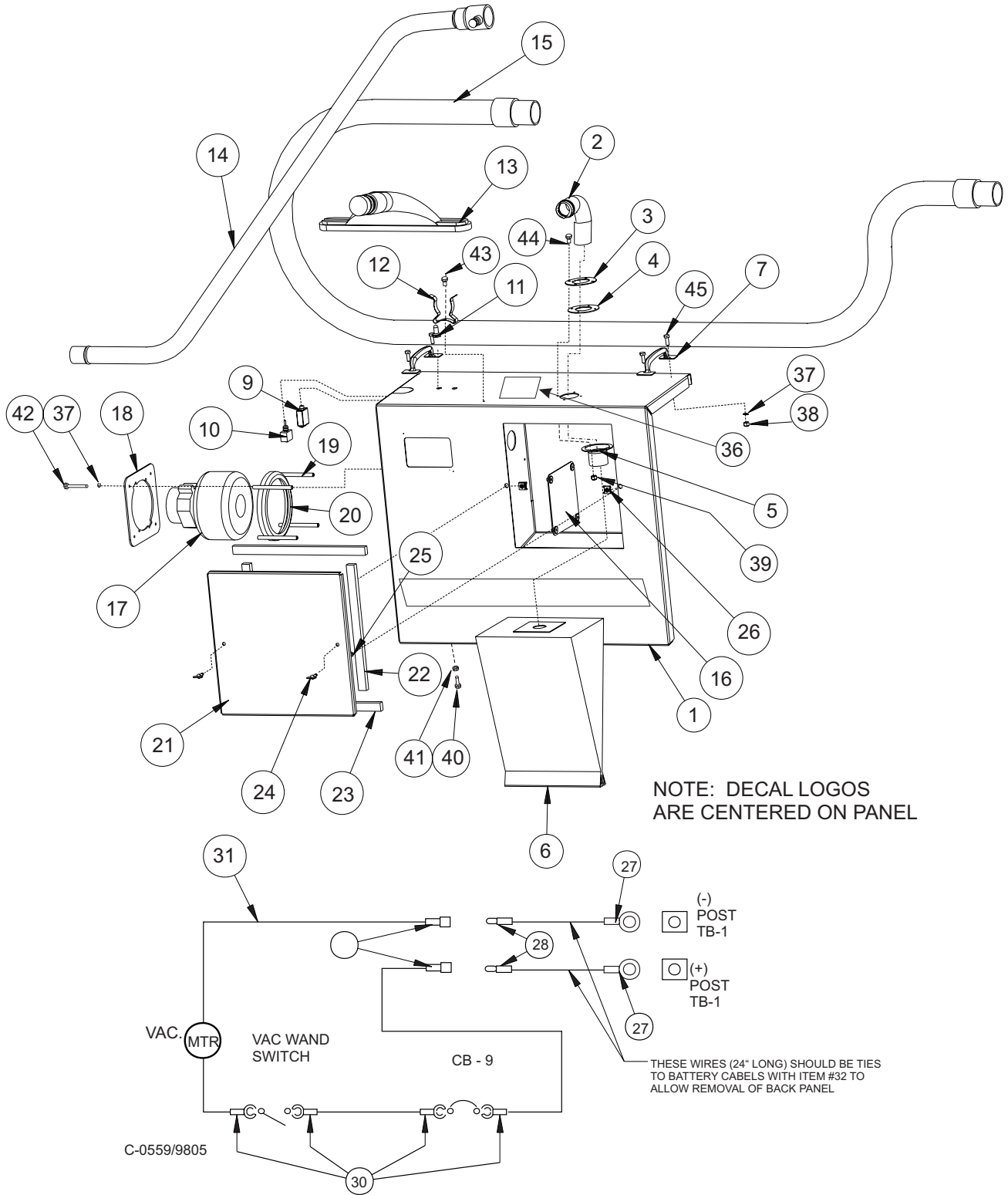
C-0484/9403

VAC WAND OPTION - PARTS LIST

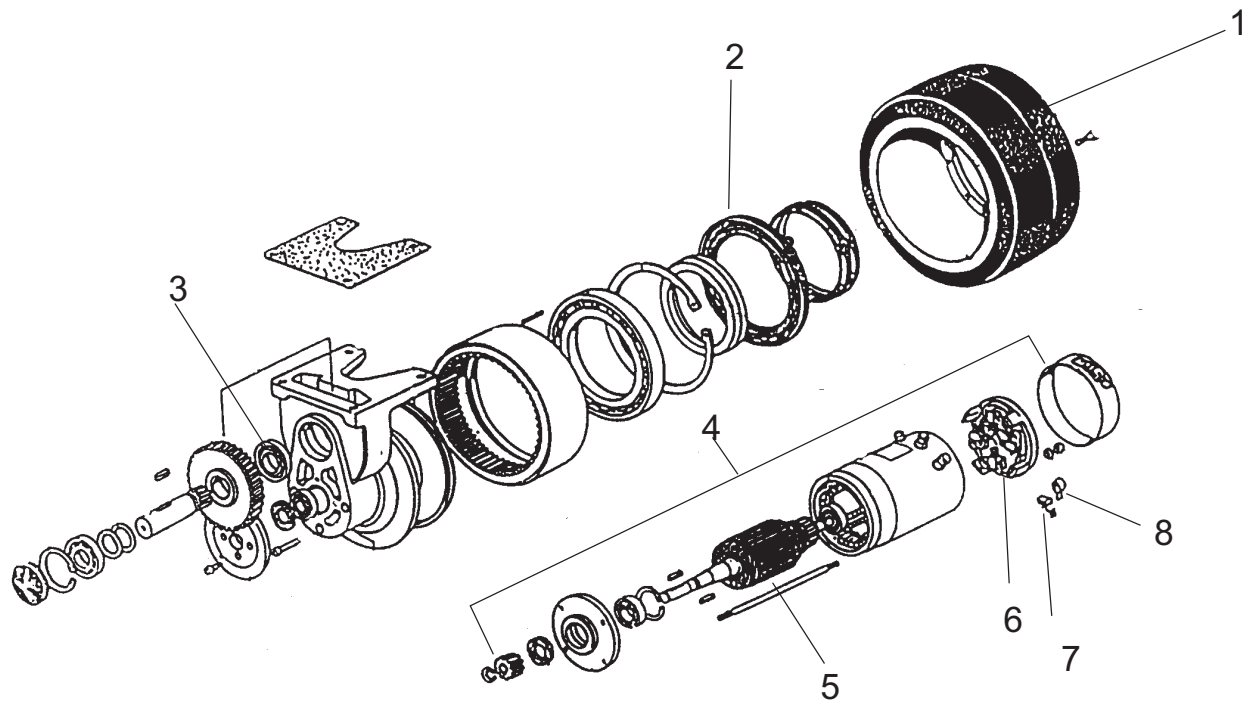
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	8-52-00171	Panel, Vac	1
2	8-03-00053	Adapter, Hose	1
3	8-65-00047	Retainer	1
4	8-29-00242	Gasket	1
5	8-03-00054	Swivel	1
6	8-05-02022	Bag	1
7	8-31-06069	Handle	2
8			
9	7-64-00025	Circuit Breaker	1
10	2-00-03974	Toggle Switch	1
11	2-74-00059	Boot-Toggle	1
12	7-13-07097	Tab	1
13	0261-0131	Carpet Tool (12")	1
14	0261-025	Wand	1
15	0261-033	Hose	1
16	8-05-01001	Baffle	1
17	0782-117	Vac Motor	1
18	7-58-05213	Plate	1
19	7-75-01128	Spacers	4
20	2-22-00003	Motor Mounting Ring	1
21	8-16-07362	Cover	1
22	8-68-05082	Seal	2
23	8-68-05083	Seal	2
24	8-23-03069	Fastener	2
25	8-23-03070	Retainer	2
26	8-23-03071	Receptacle	2
27	2-00-04859	Terminal .25 Ring	2
28	2-00-04708	Terminal .25 Female FISO	2
29	2-00-05183	Terminal .25 Male FISO	2
30	2-00-04714	Terminal #6 Spring Spade	4
31	3-61-00096	Wire #12 AWG (Black)	5'
32	2-00-04345	Tye-Wrap	5
33	7-18-00121	Decal - Warning	1
34	7-18-00227	Decal Warning	1
35	8-18-00387	Decal - American-Lincoln	1
36	8-18-00447	Decal, Caution (Wire 14)	1
37	2-00-00519	Lock Washer, # 10 Med HS	4
38	2-00-00605	Nut, Hex MS #10 - 24 x .375 x .125	8
39	2-00-00645	Nut, Hex Fiber Insert #6-32	4
40	2-00-00589	Nut, Hex Jam, .25-20	2
41	2-00-00221	Screw, 1/4-20 x .750 HHC	6
42	2-00-00107	Screw, #10-24 x 4.50 RD. HD. 4	
43	2-00-04312	Screw, #10-24 x .625 T/C Hex HD.	1
44	2-00-00044	Screw, #8 - 32 x .500	4
45	2-00-03061	Screw, #10 - 24 x .50 THM	8

C-0559/9805

VAC WAND OPTION - EXPLODED VIEW



DRIVE MOTOR SERVICE PARTS



C0488/9802

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	2-60-02284	Rubber Wheel	1
2	2-60-02285	Oil Seal	1
3	2-60-02286	Bearing	1
4	2-60-02287	DC Motor, Diameter 113mm	1
5	2-60-02288	Rotor	1
6	2-60-02289	Brush Holder	1
7	2-60-02290	Brush	1
8	2-60-02291	Spring	1
9	2-60-02309	Protection Shield	1

C-0488

SPARE PARTS PACKAGE - 0880-590

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	0775-159	Diode Assembly	1
2	0875-113	Potentiometer	1
3	0860-624	Shaker Motor	1
4	2-00-02049	Bearing (Broom Drive)	1
5	2-00-03306	Bearing (Broom Drive)	1
6	2-00-04825	Solenoid	1
7	2-00-05226	Bearing (Rear Wheel)	2
8	2-00-05259	V-Belt (Broom Drive)	1
9	7-28-00001	Circuit Breaker (35 amp)	1
10	7-64-00022	Circuit Breaker (20 amp)	1
11	7-64-00025	Circuit Breaker (25 amp)	1
12	7-76-00102	Spring (Wheel Lock)	1
13	7-82-00037	Switch	1
14	8-08-03215	Side Broom	1
15	8-08-03216	Broom (Proex)	1
16	8-24-04074-1	Panel Filter	1
17	8-25-08186	Flap (Rear Inner)	1
18	8-25-08187	Flap (LH Door)	1
19	8-25-08188	Flap, (Front Outer)	1
20	8-25-08189	Flap, (Front Inner)	1
21	8-25-08190	Flap, (Rear Outer)	1
22	8-25-08191	Flap, (Right Side)	1
23	8-25-08192	Flap, (Wheel Drive)	1
24	8-29-00224	Seal, (Door Upper)	1
25	8-29-00225	Seal, (Door Lower)	1
26	8-29-00226	Seal, (Hopper Center)	1
27	8-68-05072	Seal, (Hopper Side)	1
28	8-82-00044	Switch, (Dust Control/Side Brooms)	1
29	8-82-00045	Switch, (Filter Shaker)	1

9705

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WARRANTY

AMERICAN-LINCOLN TECHNOLOGY
114RS RIDER SWEEPER
"BUMPER-TO-BUMPER" LIMITED WARRANTY

I. COVERAGE

A. Subject to the terms and limitations stated herein, American-Lincoln warrants, to the original purchaser only, to repair or replace, at its option and upon the terms set out below, this product or any parts thereof (excluding normal maintenance items) which are defective in materials or workmanship, for a period of (1) one years or 1,000 hours of normal operation from the date of purchase, whichever comes first, but not to exceed (2) two years from the date of factory shipment, provided that the product is operated and maintained in accordance with American-Lincoln's Maintenance and Operations Instruction.

1. (a) During the first thirty (30) days from the date of purchase, American-Lincoln will provide, without charge, parts and on-site labor (including up to three(3) hours total round-trip travel time) to remedy a defective product or part.

(b) During the remainder of the warranty period, as itemized herein above, American-Lincoln will provide, without charge, parts and labor to remedy a defective product or part; however, all travel time for on-site remedy and all shipping and freight charges for off-site remedy of the product or parts thereof shall be the sole responsibility of the purchaser.

B. In addition to the terms above (except as to the one year period), any original equipment American-Lincoln Battery which becomes unserviceable under normal use within a period of ninety (90) days from date of sale to the original user will be repaired or replaced with one of equal specifications at our option, F.O.B. any authorized American-Lincoln Sales or service branch, with no charge to the user, except transportation costs. After expiration of the above ninety (90) day period, any battery which fails under normal use will be adjusted to the original user with a new battery of equal specifications on an eighteen (18) months pro rate basis from the date of purchase. Adjustment will be determined using the then current list price, plus transportation costs. Warranty is rendered NULL and Void if battery is not kept filled to the proper level with DISTILLED WATER.

C. In addition to the above, if applicable, American-Lincoln, warrants to the original purchaser only, to repair or replace, at its option and upon the terms set out below, the main frame, debris hopper, solution tank, and the recovery tank, for eight (8) years against failure caused by defects in workmanship or total rust through. For purposes of this coverage, cosmetic deterioration or surface rust does not constitute a failure.

II. EXCLUSIONS

This warranty **does not** cover normal maintenance parts and labor, including but not limited to, rubber parts, seals, flaps, brushes, engine maintenance parts, hoses, carbon motor brushes, fluids and routine adjustments. This warranty **does not** cover damage or failure of the product or any parts thereof which is the result of misuse, negligent operation, handling or repair, or which is the result of modification by any person other than an authorized American-Lincoln service representative.

III. LIMITATIONS

AMERICAN-LINCOLN MAKES NO WARRANTIES OTHER THAN THOSE SPECIFIED HEREIN. ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED. AMERICAN-LINCOLN LIABILITY UNDER THIS WARRANTY IS LIMITED TO REPAIR AND/OR REPLACEMENT OF PRODUCTS OR PARTS AS SET OUT HEREIN. AMERICAN-LINCOLN SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES WHICH MAY RESULT FROM A PRODUCT OR PART DEFECT OR FAILURE. ANY EXTENSIONS OF OR MODIFICATIONS MADE TO THIS WARRANTY BY A DISTRIBUTOR OF AMERICAN-LINCOLN ARE THE SOLE RESPONSIBILITY OF THE DISTRIBUTOR.

IV. PROCEDURES AND CONDITIONS FOR WARRANTY CLAIMS

AMERICAN-LINCOLN SHALL NOT BE LIABLE FOR REPAIR OR REPLACEMENT OF ANY DEFECTIVE PRODUCT OR PART THEREOF UNLESS AND UNTIL THE ORIGINAL PURCHASER FULFILLS THE FOLLOWING CONDITIONS PRECEDENT TO RECOVERY UNDER THIS WARRANTY:

1. The original purchaser shall promptly complete and return the warranty and installation registration form included with the product at the time of the purchase.
2. Upon product or part failure, the original purchaser shall promptly provide notice thereof to his nearest authorized American-Lincoln Service Representative; and
3. The original purchaser shall permit the product or part to be inspected by American-Lincoln or its authorized representatives, as necessary and expenses for shipping or travel time shall be borne by the parties itemized in paragraph I herein above.

American-Lincoln reserves the right to make changes or improvements to its machine without notice. For best results use only the correct American-Lincoln Service Parts.

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