OLYMPIA BATTERY EDGER

Owner's Manual

www.resurfice.com

WELCOME TO THE OLYMPIA ADVANTAGE

The OLYMPIA™ Battery Edger has been designed and built to deliver trouble free performance. Like all mechanical equipment however, trouble free operation is based on complete and ongoing maintenance procedures being adhered to in order to validate your Resurfice Corp. warranty.

We have included a Maintenance Log form in this manual to assist you in maintaining a permanent record of your maintenance program. Please copy this form to provide additional pages as needed.

The operational and maintenance procedures outline a step by step process that should be followed precisely. A variety of safety and performance enhancing options are available and may be ordered on any model.

The illustrations and product information contained in this manual were current at the time of publication. In order to continue Resurfice Corp.´s development of its ice resurfacing technology, Resurfice Corp. reserves the right to change designs, models and specifications without notice and without liability for such changes. Resurfice Corp. will not be liable for any errors or omissions in this manual.

Warranty

The components in your OLYMPIA ice resurfacing machine (except the batteries) are warranted against defects in material and workmanship by Resurfice Corp., for two full years from the date of delivery.

ALL WARRANTY REPAIRS MUST FIRST BE AUTHORIZED BY Resurfice Corp. OR AN AUTHORIZED DEALER

To obtain warranty service you must first contact us so we can determine the problem and the most appropriate solution.

No warranty on this machine will be honoured by Resurfice Corp. other than that stated.

The entire OLYMPIA's Product line is designed and built to exacting standard to provide trouble free performance. Like all mechanical equipment however, trouble free performance requires regular maintenance and proper operating procedures to be followed. Failure to follow a complete and on-going maintenance program will invalidate the Resurfice Corp. warranty on the OLYMPIA Edger.

Registration Information

Purchaser: .....

Address: .....

.....

Model: .....

Serial Number: .....

Date Delivered: .....

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DEAR USER!

Before you put your OLYMPIA™ Battery Edger into operation, please take the time to carefully read this operating manual.

Pay particular attention to the safety instructions given throughout the manual.

This is a prerequisite for…

- Safe handling and operation of the edger.
- Trouble-free operation of the machine.

Always keep the operating manual in the vicinity of the edger.

NOTE:

We reserve the right to make changes in content. Resurfice Corp. accepts no liability for any errors, omissions and or misinterpretations of the material in this documentation. Liability for indirect damages arising from the supply and use of this documentation is excluded, unless required by law.

Resurfice Corp.

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25 Oriole Pkwy E, Elmira, Ontario Canada N3B 3A9

1 SAFETY

The OLYMPIA™ Battery Edger is intended for use, only by people who have a basic knowledge of motorized equipment operation and maintenance. Resurfice Corp. cannot accept responsibility for any accidents that occur as a result of operation or maintenance of the machine.

Operating conditions vary widely and Resurfice Corp. cannot predict these varying conditions, and it is therefore the user's responsibility to determine the appropriate settings in the operation of the OLYMPIA™ Battery Edger.

Each OLYMPIA™ Battery Edger is shipped with a variety of built-in safety devices. To prevent the occurrence of such accidents, all operators and maintenance personnel that deal with the machine must carefully read the manuals supplied by Resurfice Corp. before attempting to operate and maintain the OLYMPIA Battery Edger.

Because there are many "things that cannot be done" and "things that must not be done" when using the OLYMPIA™ Battery Edger, it is impossible to cover it all in the OLYMPIA™ Battery Edger manual. Assume that something is impossible or unsuitable unless the manual specifically states that it can be done.

1.1 Pictograms Used

Throughout the text in this manual and in part, on the ice resurfacer itself, you will find, among other things, the following pictograms:

Imminent danger that can result in death, serious bodily injury, or major material damage.

Warning about dangerous electrical voltage.

Warning about hazardous movements that can result in hand injuries.

Warning about blades, sharp edges, and similar, that can result in cutting injuries.

Warning about potential explosion.

Application tips and other useful information.

Fundamental safety information is highlighted throughout the manual.

Please make use of this material when operating and maintaining the OLYMPIA™ Battery Edger.

All cautions on operation must be strictly observed when operating the machine, carrying out maintenance work, and storing the equipment. Failure to observe the fundamental safety information can cause accidents in which the operator or other personnel that deal with the OLYMPIA™ Battery Edger are seriously injured, or the machine is damaged. All personnel that deal with the machine must carefully read and thoroughly understand the information in the following pages before attempting to operate or maintain the OLYMPIA™ Battery Edger.

The OLYMPIA™ Battery Edger arrives fully assembled. Installation of the main 100 fuse maybe required prior to use – check and install if necessary.

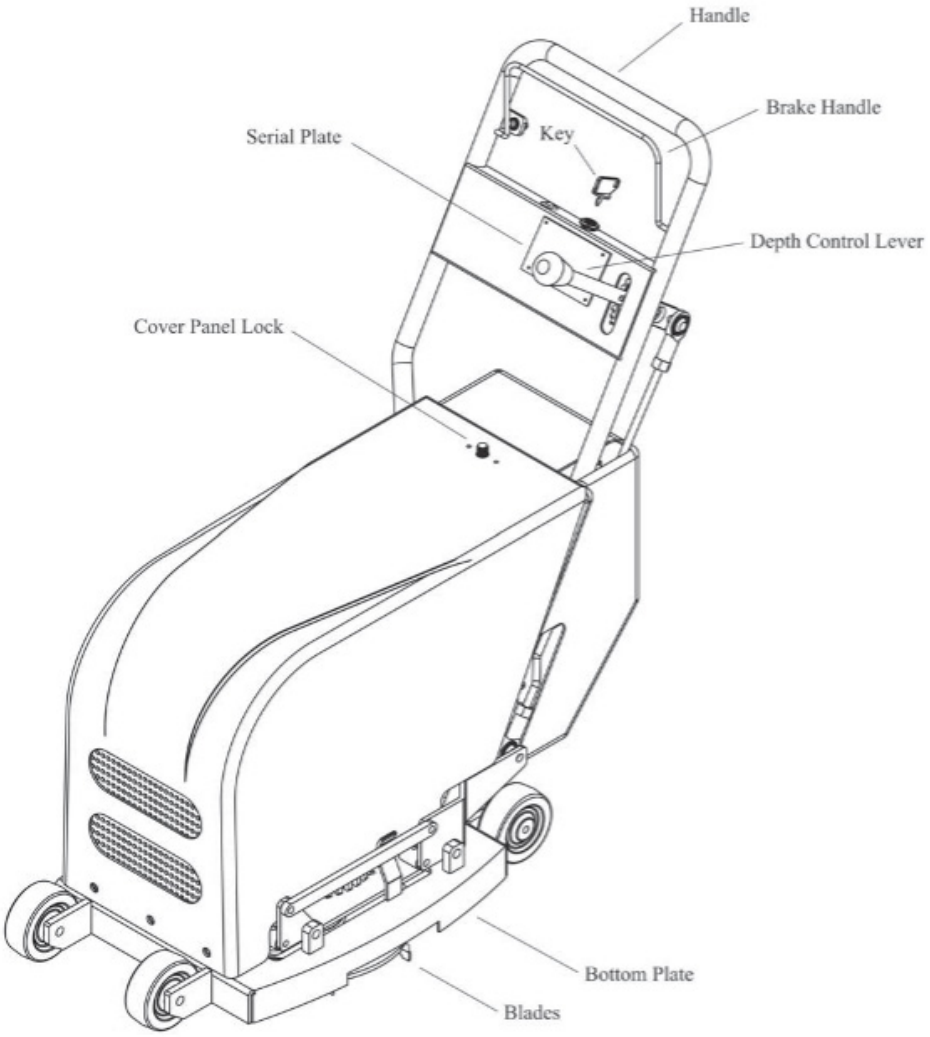
2 DELIVERY PROCEDURE

2.1 Delivery Parts Check

The OLYMPIA™ Battery Edger is delivered fully assembled along with the Schauer battery charger.

Upon receipt of the OLYMPIA™ Battery Edger, install the charger in an open area, adjacent to a direct electric power source outlet, according to the installation instructions for battery chargers.

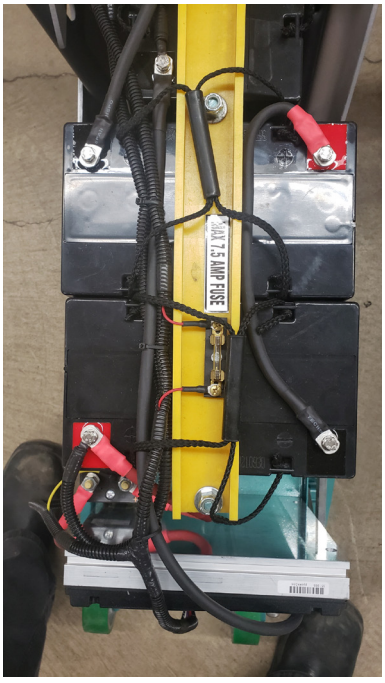
Safety Note: Make sure the charger is mounted in an open area.



2.2 Schauer Installation

In order to optimize the performance and useful life of your charger, the following guideline for installation should be followed.

1. Chargers are electronic products designed for efficient energy conversion, specifically taking unregulated AC line power and converting it to an isolated low voltage DC power source. The nature of the process dictates that some heat is generated in the process, and consideration should be given to the proper dissipation of this heat. Electronic assemblies are sensitive to excessive heat and extreme temperatures could shorten the life cycle of the charger.
2. The measure of the output of a charger is called "watts", which are calculated by multiplying voltage X current. For example, a 12-volt, 10-amp charger will generate approximately 120 watts (12 X 10). If the "waste heat" generated by the charger was 10% of the rated wattage, it would be the equivalent of a 12-watt light bulb. In open air spaces, this heat is not an issue- but in a small box, it could get very hot.
3. Schauer chargers are cooled by convection. This means that as the charger generates warm air, it rises and cooling air takes its place. It is important that the charger is mounted in an area that will allow sufficient airflow. Keep in mind that the charger will self-protect in extreme temperature by cutting back on the amperage output. Correct installation will ensure maximum efficiency.
4. Keep the top charger surface at least 4" below the ceiling of any compartment and the bottom of the charger surface at least 6" above the floor so the air can find its way around the body to provide cooling.
5. Mounting Space: The larger the space, the greater the cooling. Use larger areas when available.



2.3 Motor & Controller

The OlYMPIA Battery Edger is supplied with a Heinzman PMG 132 electric motor and a DMC motor controller. These items are not serviceable.

See the Error Codes guide for the DMC Motor Controller.

This controller is protected by a 7.5 amp fuse (see photo on right).

3 OPERATING PROCEDURE

3.1 Battery Charging Procedure

The OLYMPIA Edger has been supplied with a Schauer charger model JACO436. Carefully read and understand the instructions listed in the manual provided.

The OLYMPIA™ Battery Edger is re-charged by a Schauer “smart” charger. It first evaluates the amount of charge in each of the three batteries on the OLYMPIA™ Battery Edger. When the proper charge levels are obtained the battery charge cycle switches automatically into the trickle charge mode which maintains the battery at the peak charge.

The OLYMPIA™ Battery Edger three stage battery array is designed for safety and all operators must comply with the following safe battery charging instructions:

Step 1: Make sure the charger is unplugged from the main electric power source or the power control switch is turned off.

Step 2: Remove the ignition key from the OLYMPIA™ Battery Edger.

Step 3: Plug the charger into the OLYMPIA™ Battery Edger and then plug the charger into the direct electric power source.

SAFETY NOTE: Always plug the charger into the OLYMPIA™ Battery Edger before plugging the charger into the direct electric power source.

Maintaining the OLYMPIA™ Battery Edger: Periodically clean all the battery terminals with baking soda and tighten all connections. No other maintenance is required.

3.2 Battery Cycles

The sealed lead acid gel batteries on the OLYMPIA™ Battery Edger are rated for 1,600 cycles. Every time the OLYMPIA™ Battery Edger is plugged into the charger constitutes a single cycle. A full charge on the batteries provides for approximately 40 to 60 minutes of operating time, depending on how deep a cut you are making. If you edge the ice surface once a day, it should only take 15 minutes to complete the edging procedure. Consequently, to get maximum life out of the batteries you should recharge the batteries every third or fourth day.

SAFETY NOTE: When you are ready to edge the ice, make sure you disconnect the direct electric power source to the charger and then disconnect the charger from the OLYMPIA™ Battery Edger.

3.3 Blade Installation

Before using the OLYMPIA™ Battery Edger you first must inspect the blades to ensure they are undamaged and secured tightly to the blade plate.

SAFETY NOTE: Prior to inspecting the blade tips make sure you are wearing protective gloves.

1. To check the blades: first remove the ignition key.
2. Now tilt the OLYMPIA™ Battery Edger backward onto the sloped back. Unlike other edgers on the market the OLYMPIA™ Battery Edger's batteries are gel filled and sealed, allowing you to lay it over at any angle. However, the OLYMPIA™ Battery Edger is designed to safely support the unit when the control handle is pushed downward, tilting the unit onto its sloped back.
3. Rotate the blade plate and visually inspect each of the blade tips to ensure they are undamaged, sharp and securely tightened to the blade plate. If the blade tip is damaged, the OLYMPIA™ Battery Edger will vibrate and you will get an uneven finish on the ice. Even more important, a loose or damaged blade tip could separate from the blade plate and cause serious injury or damage.

Safety Note: Most blade damage is caused by hitting screws in the dasher boards or ice surface entrance thresholds.

4. When a blade needs replacement, first undo the four bolts holding the blade plate in place.
5. On a work surface loosen the two bolts holding the blade tip to the blade plate. Remove the damaged tip and replace it with a new blade tip, making sure to position it correctly on the plate before tightening the holding bolts to a maximum 11 ft. lbs of torque.
6. The blade position cannot be adjusted. Ensure blades do NOT hit the guard casing.

When the blades are inspected and replaced, if necessary, re-attach the blade plate with the four bolts making sure to tighten to a maximum 11 ft. lbs. of torque on the grade 8 bolts.

Safety Note: Make sure you do not over torque the blade attachment bolts. It can cause the blade to break and fly out from under the edger. Because of the high velocity of the spinning blade plate this can be extremely dangerous.

3.4 Edging Procedure

Once the OLYMPIA™ Battery Edger is charged, the blades inspected and replaced, if necessary, you are ready to edge the ice surface.

Safety first: Before entering the ice surface make sure you are wearing a helmet, safety footwear, safety glasses, and studded slip-on boot covers to provide proper traction on the ice.

The OLYMPIA™ Battery Edger is designed to remove ice buildup along the boards and level the ice surface. Ice buildup extends from the board into the ice surface. To properly level the ice, we recommend the following procedure:

1. Push the OLYMPIA™ Battery Edger onto the ice surface. Securely close the entrance door and ensure that all the other entrance doors are closed and secured.
2. Walk the entire perimeter of the ice surface examining the board surfaces for protruding screws and materials embedded into the ice and/or boards. Remove any such debris. This will prevent damage to the edger, the boards and most importantly to the operator.
3. After completing the board inspection walk around the perimeter of the rink a second time, examining the ice surface for high spots. Using a felt tip pen, mark the beginning of a high spot with a line and an arrow pointing forward along the high spot. At the end of the high spot mark another line and an arrow pointing backwards. This will clearly indicate where you have to spot edge the ice.
4. With the blades in the fully up position turn on the OLYMPIA™ Battery Edger compress the start bar on the handle and push the edger forward to the first marked high spot.

It is very important to keep the edger moving throughout the edging process.

5. When the edger is against the board and you reach the first arrow, lower the cutting blades by pushing the lock button on the blade height control lever to release it and lower the cutter assembly by pushing the lever downward. The blades will begin to cut into the high spot, removing the ice. As you reach the end of the high spot, push in the control button on top of the blade height lever and pull up to bring the blades off the ice surface. Repeat this until each high spot has been removed.
6. Once the high spots are removed do a second lap around the ice perimeter. Move the edger against the boards with the blades spinning in the raised position. Now moving forward push the blade height control lever until the cutter assembly starts cutting a thin cut of the ice. Maintaining that cut level, edge the entire perimeter of the ice surface.

SAFETY NOTE: NEVER move the OLYMPIA™ Battery Edger backward when the blades are moving or try to cut backwards.

7. When you have completed a full circuit around the ice, raise the cutter assembly to the full up position, release the start bar and turn off the key. Exit the ice surface and store the OLYMPIA™ Battery Edger in the proper storage area next to the charger.

SAFETY NOTE: Always release the safety bar before turning the ignition key off. Turning key off while the safety bar is engaged can cause severe damage to the OLYMPIA™ Battery Edger.

A fully charged OLYMPIA™ Battery Edger is able to complete three to four full edging procedures under normal ice buildup scenarios following a daily edging regime.

The motor on the OLYMPIA™ Battery Edger, has a safety preset which turns off the motor if it is over worked or over heats. If this occurs, simply turn the ignition key to the off position and wait until the motor has had time to cool down. Once cooled the engine can be started following the normal starting procedure.

3.5 Electric Motor Safety Feature

SAFETY NOTE: When doing any inspection or maintenance work on the OLYMPIA™ Battery Edger always remove the ignition key first. This is the best safety measure you can use in preventing accidents.

To open the OLYMPIA™ Battery Edger turn the opening knob on the top of the edger casing counter-clockwise. You will note the three batteries which are pre-wired together and enclosed in a safety harness.

3.6 Maintenance Procedure

DANGER: The 100-amp fuse located at the front of the OLYMPIA™ Battery Edger, is hot. Do not touch. Whenever working on the OLYMPIA™ Battery Edger, make sure you are not wearing any rings, bracelets or watches which can cause an electric arc and severe injury.

If you have to remove the 100-amp fuse, make sure the battery array is disconnected by disengaging the positive terminal (red wire) from the front battery before touching the 100-amp fuse. Do not re-engage the positive terminal until after you have replaced the 100-amp fuse.

Risk of explosive gases! Working in the vicinity of sealed lead acid gel batteries is dangerous. Batteries generate explosive gases during normal operation. Therefore, it is of utmost importance you follow these instructions exactly.

3.7 Important Charger Safety Instructions

Adhere to the following personal safety precautions when installing or working with the chargers.

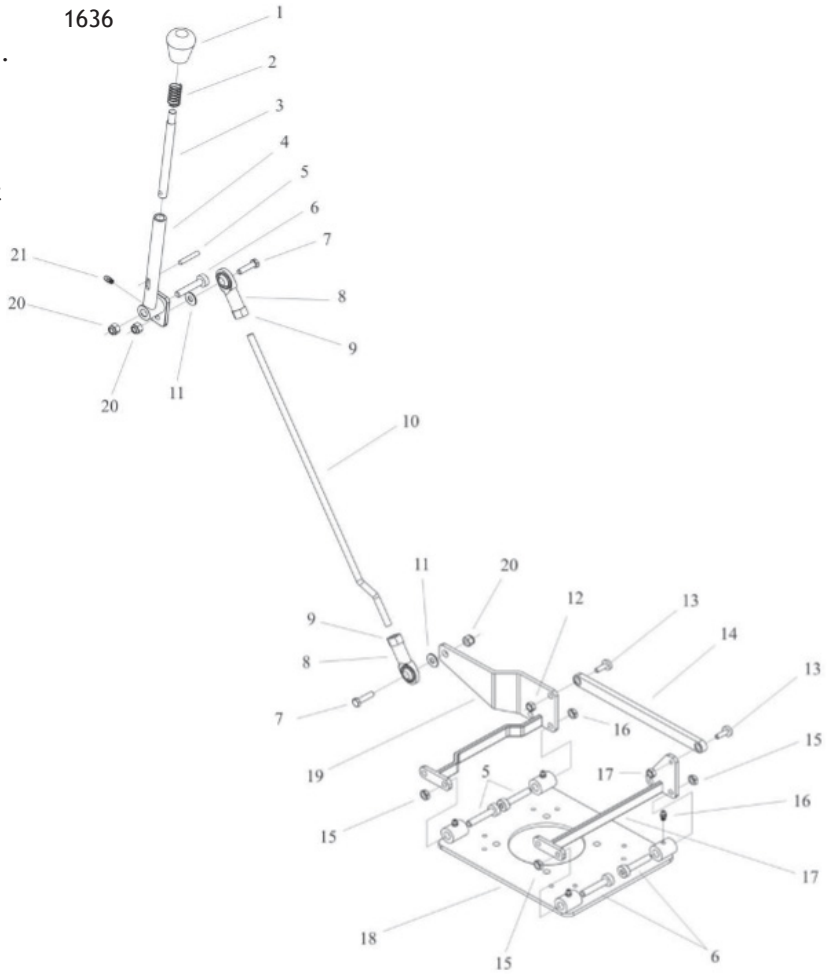
1. Someone should be within voice range or close enough to come to your aid when you work near a sealed lead-acid Gel battery.
2. Have plenty of fresh water and soap nearby in case battery acid contacts your skin, clothing or eyes.
3. Wear complete eye protection and clothing protection. Avoid touching your eyes while working near a battery.
4. If battery acid contacts your skin or clothing, wash them immediately with soap and water. If acid enters your eye, flood the eye with cold, running water for at least ten minutes and get medical attention.
5. Never smoke or allow open flame in the vicinity of the battery.
6. Do not drop a metal tool onto the battery. It may spark, short circuit the battery and may cause an explosion.
7. Remove all personal metal items such as rings, bracelets, necklaces and watches when working near a lead- acid battery. A battery can produce short circuit currents high enough to weld a ring or the like, causing a severe burn.

SAFETY NOTE: If after charging you find the performance power is low have the batteries checked by a qualified battery technician.

4 PARTS LIST

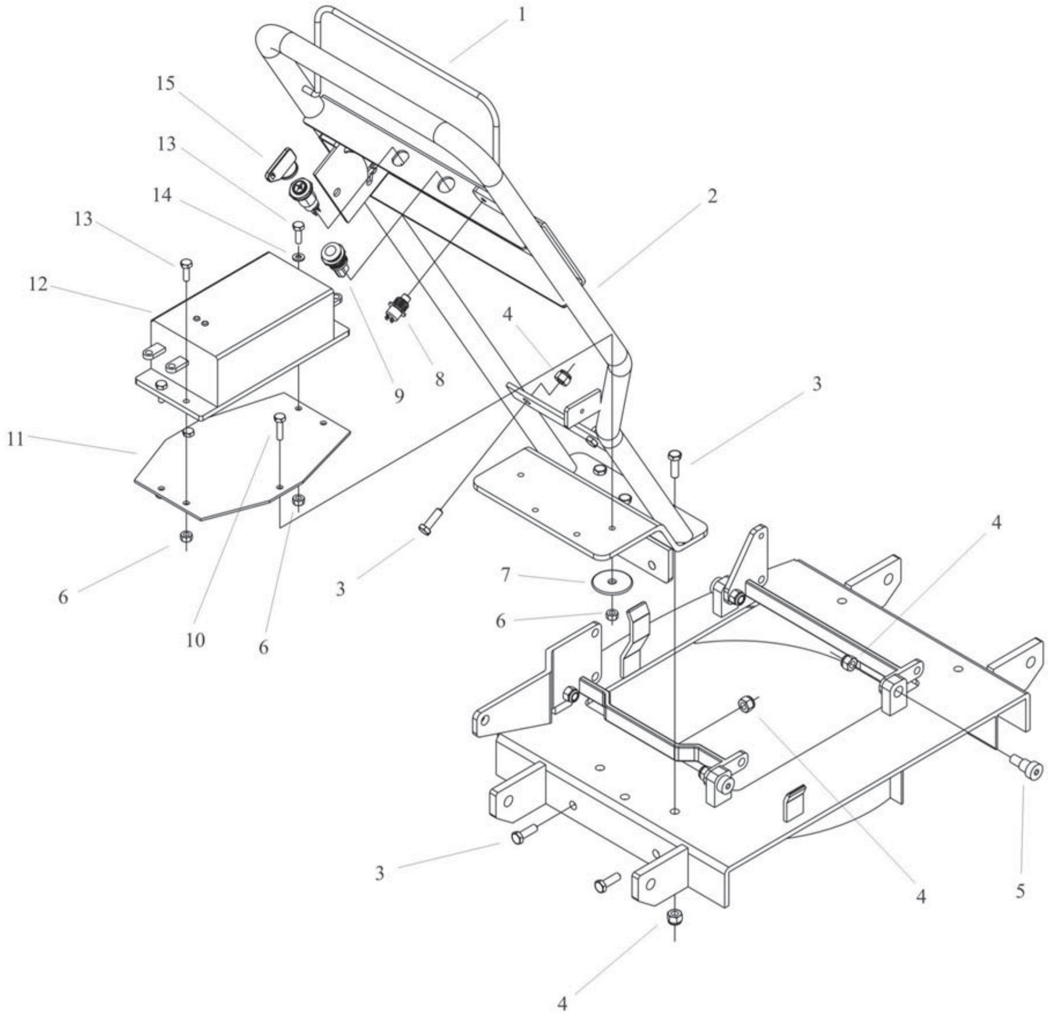
Control Arm

Ref.#	Part #	Description	OEM #
1	55- 5120	Depth Selector Handle Knob	
2	10- 120	Gear Shift Spring	C18291600318
3	55- 5100	Depth Selector Rod	
4	55- 5110	Depth Selector Handle Knob	
5	49-37800	Split Pin 1/4 x 1 1/2	
6	50-51925	Axle 1/2 x 1 1/4	1/2 x 1 1/4 Stripper Bolt
7	49-30550	Hex Hd bolt 3/8 x 1 1/4	3/8 - 16 x 1 1/4
8	25-51855	Rod End	VCW6
9	49-33600	Hex Hd Nut 3/8-24	
10	55-25330	Depth Adjustment Rod	
11	49-36250	Flat Washer 3/8	
12	49-33235	Hex Hd Jam Nut 5/16-18	
13	49-30050	Stripper Bolt 3/8 x 3/8	
14	55- 3210	Engine Mount Connecting Bar	
15	49-33555	Hex Jam Nut 3/8-16	
16	49-19025	Grease Fit 1/4-28 45 Deg.	1636
17	55- 3150	Front Engine Mount Depth Adj.	
18	55-25310	Engine Mount	
19	55- 3200	Back Engine Mount Depth Adj.	
20	49-33500	Locknut-Nylon 3/8-16	
21	49-19035	Grease Fitting 1/4-28 Straight	



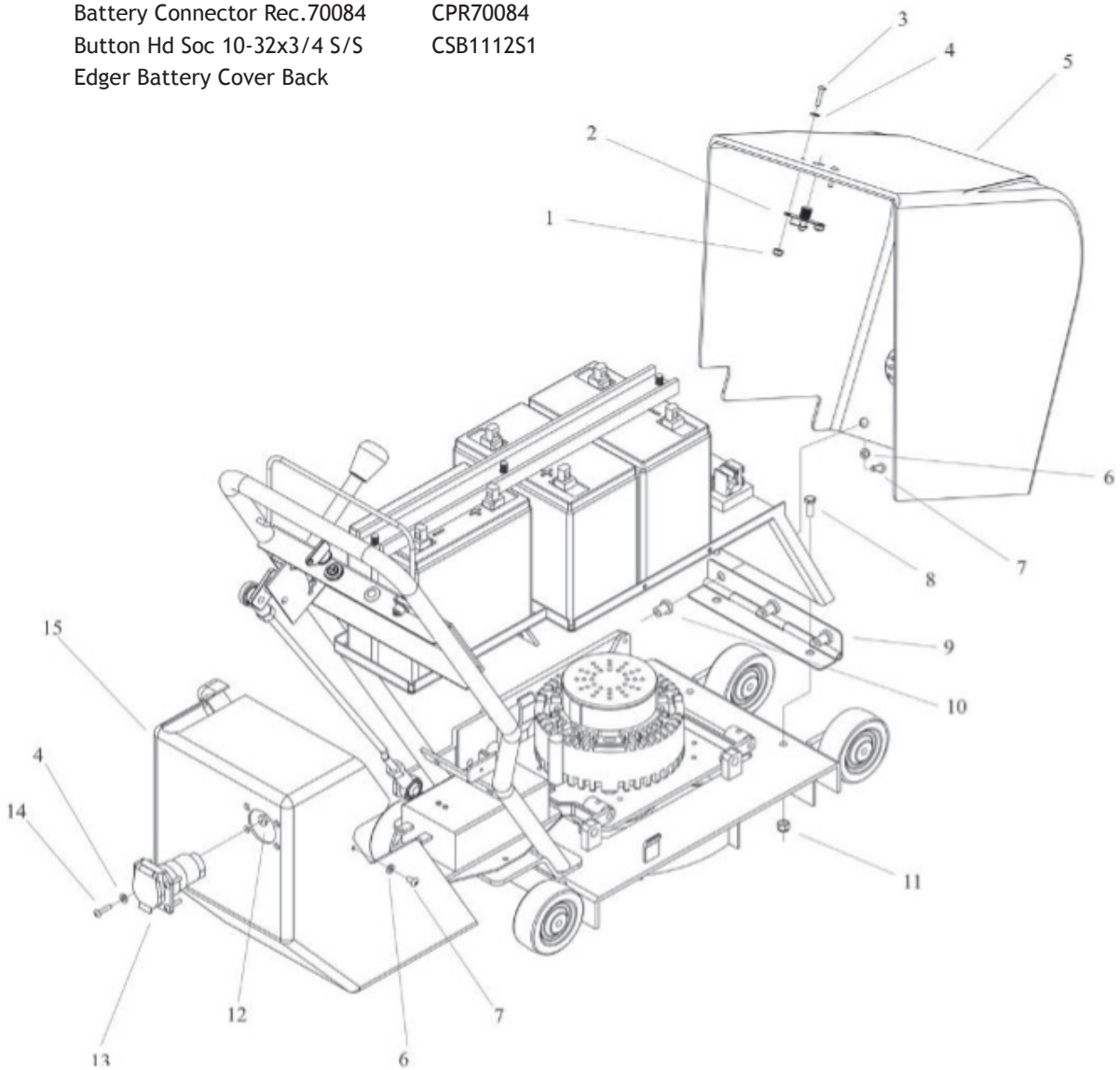
Handel Bar

Ref.#	Part #	Description	OEM #
1	55-25450	ON/OFF Bar	
2	55-25400	Handle	
3	49-30500	Hex Hd Bolt 3/8 x 1	3/8 - 16 x 1
4	49-33555	3/8 - 16 Hexjam Nut	
5	55- 1050	Motor Mount Pivot Bolt	1/2 x 1/2 Stripper Bolt
6	49-33200	Locknut Nylon 1/4-20	
7	35-23860	Bottom Hub Washer	
8	55-25070	Safety Push Buttom	OTT P1-62122
9	50-53015	Valve Pilot Light	PL-20-GC 2 Wire
10	49-30230	Hex Hd Bolt 1/4 x 1	1/4-20 x 1
11	55-25042	Controller Mount	
12	55-25040	Motor Controller	SRE-MC 248-11
13	49-30200	Hex Hd Cap Screw 1/4 x 3/4	1/4-20 x 3/4
14	49-36100	Flat Washer 1/4 Hole	3/16 Flat Washer - Zinc
15	50-53250	Key Switch	95614
16	49-33500	Locknut -Nylon 3/8-16	



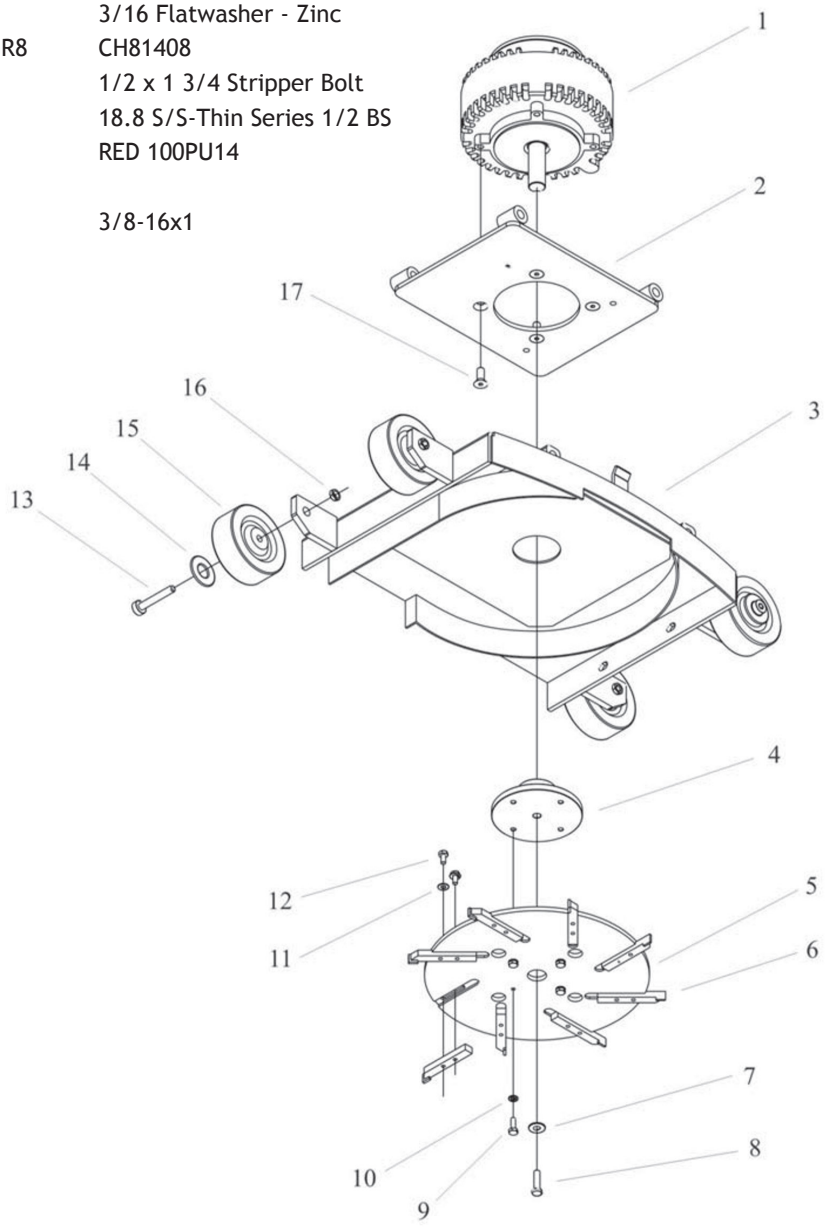
Panels & Sled

Ref.#	Part #	Description	OEM #
1	49-33130	Locknut-Nylon 10-32 S/S	NS11S1
2	46- 9600	Panel Turn Latch	MO99957-10-201-10 Spring Latch
3	49-30134	Button Hd Soc10-32x1/2 S/S	
4	49-36045	Nylon Flat Washer # 10	WF194375032NY.194x.375x.032
5	55-25010	Edger Battery Cover Front	
6	49-36140	Nylon Flat Washer 1/4	WF257500032NY.257X.500X.032
7	49-30233	Button Hd Soc 1/4-20x1 S/S	CSB 1416S1
8	49-30550	Hex Hd Bolt 3/8x1 1/4	3/8-16x1 1/4
9	55-25015	Edger Battery Front Hood Hinge	
10	49-33213	Well Nut 1/4-20 NWEL1418	
11	49-33500	Locknut-Nylon 3/8-16	
12	49-33075	Well Nut 10-32	NWEL111910-32x.015-.192
13	55-25085	Battery Connector Rec.70084	CPR70084
14	49-30135	Button Hd Soc 10-32x3/4 S/S	CSB1112S1
15	55-25020	Edger Battery Cover Back	



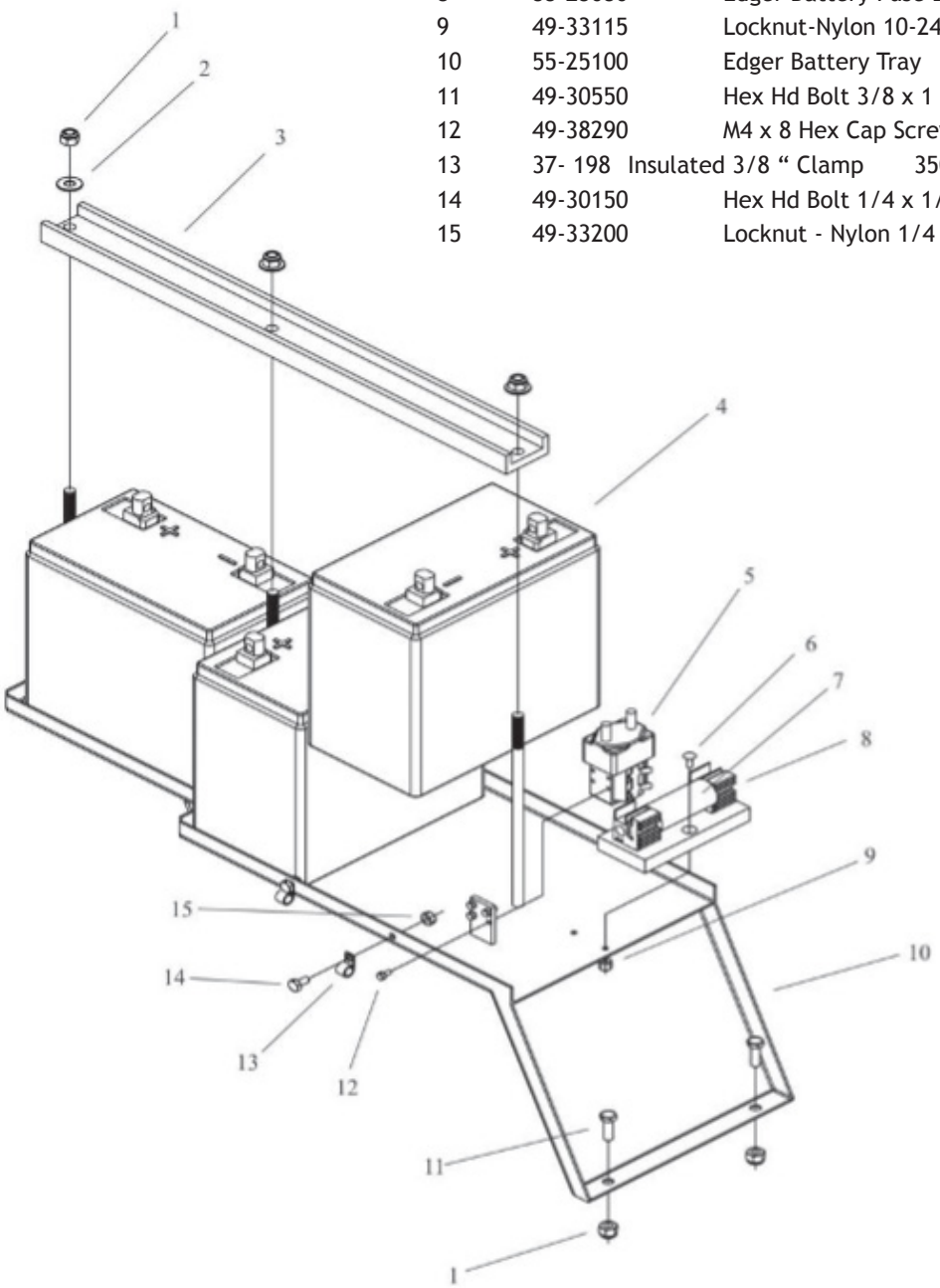
Under Carriage

Ref.#	Part #	Description	OEM #
1	55-25005	Motor Electric	696951
2	55-25310	Engine Mount	
3	55-25300	Base	
4	55-25350	Bottom Hub	
5	55-25355	Bottom Plate	
6	50-51760	Edger Blade	
7	49-36250	Flat Washer 3/8	
8	49-30560	Hex Hd bolt 3/8 x 1 1/4	3/8-24 x 1 1/4
9	49-30205	Hex Hd Bolt 1/4 x 3/4	1/4-28 x 3/4 HCS
10	49-36170	Lockwasher 1/4	
11	49-36100	Flat Washer 1/4 Hole	3/16 Flatwasher - Zinc
12	49-30152	Hex Head Bolt 1/4 X 1/2 GR8	CH81408
13	50-51930	Back Axle	1/2 x 1 3/4 Stripper Bolt
14	55- 1010	Wheel Washer	18.8 S/S-Thin Series 1/2 BS
15	55- 1000	Rubber Wheel 4”	RED 100PU14
16	49-33555	3/8 - 16 Hexjam Nut	
17	49-30530	Flat Socket Screw 3/8 x 1	3/8-16x1

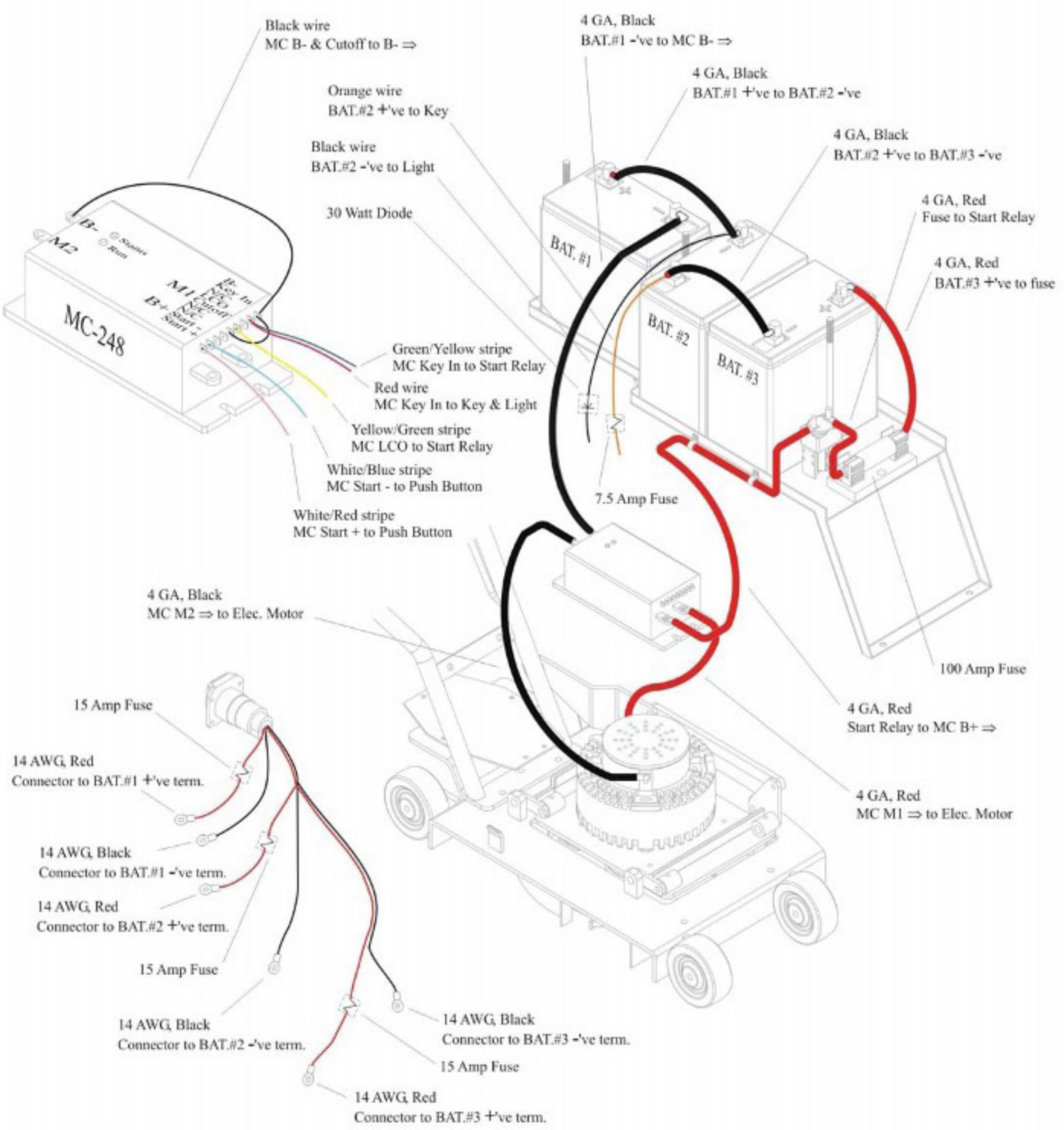


Battery Tray

Ref.#	Part #	Description	OEM #
1	49-33500	Locknut - Nylon 3/8 - 16	
2	49-36250	Flat Washer 3/8	
3	55-25095	Battery Hold Down Channel 22”	R-13858
4	55-25000	Edger Battery SLA12-55	
5	55-25045	Edger Battery Relay-Contactor	SRE-CT-SW80B-60
6	49-30110	RD Soc. M/S 10/24 x 1/2	
7	55-25055	Edger Battery 100 Amp Fuse	LJP-100SP
8	55-25050	Edger Battery Fuse Block 100A	LJ60100-1C
9	49-33115	Locknut-Nylon 10-24	10-24 Nylon Insert Locknut
10	55-25100	Edger Battery Tray	
11	49-30550	Hex Hd Bolt 3/8 x 1 1/4	3/8-16x 1 1/4
12	49-38290	M4 x 8 Hex Cap Screw	9338MO408
13	37- 198	Insulated 3/8 “ Clamp 35030	
14	49-30150	Hex Hd Bolt 1/4 x 1/2	1/4-20 x 1/2
15	49-33200	Locknut - Nylon 1/4 - 20	



Electrical System



NOTE:
- RED WIRES ALWAYS +'VE
- BLACK WIRES ALWAYS -'VE

WARNING : INSTALLING BACKWARDS WILL CAUSE DAMAGE AND POSSIBLE INJURY.

5 MAINTENANCE LOG

To assist you in maintaining a permanent record of your maintenance program for your new OLYMPIA, keep track of all maintenance performed in the following log. Copy this form for additional pages as needed.

Date	Hours of Operation	Maintenance Performed