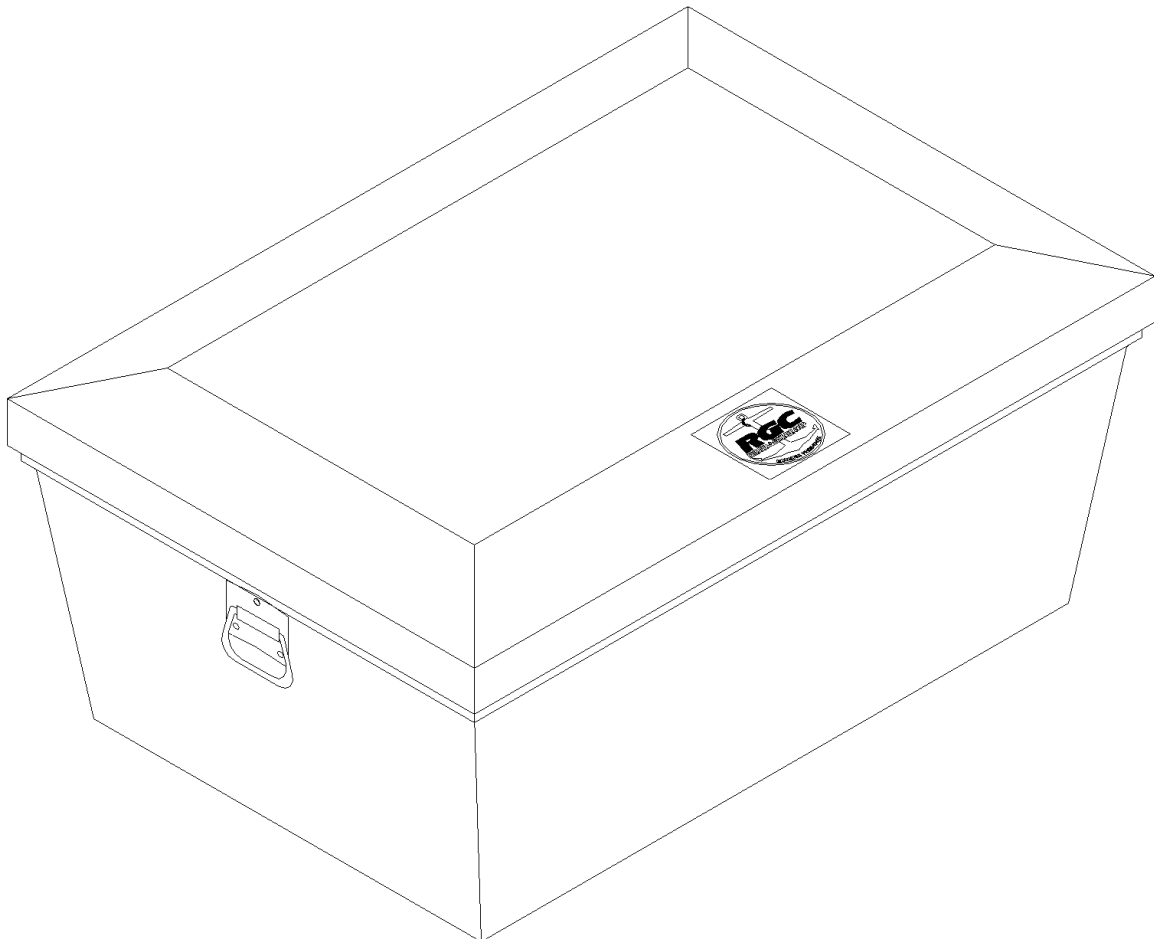




# 12V HL/HVL POWER UNIT INSTRUCTIONS

(Applies to P/N 3641618, 3641671, 4136124, 4136125, 4136127, 4136128,  
and 4136130)



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# 1. SAFETY

## 1.1. INTRODUCTION

Your Reimann & Georger Corporation Marine Products Hydraulic Lift has been engineered to provide lifting performance, long term economics and safety advantages that no other type can match. However, even a well-designed and well-built lift can malfunction or become hazardous in the hands of an inexperienced and/or untrained user. Therefore, read this manual and related equipment manuals thoroughly before operating your lift to provide maximum safety for all operating personnel, and to get the maximum benefit from your equipment.



### **WARNING:**

**DO NOT OPERATE THIS LIFT WITHOUT STUDYING THIS ENTIRE MANUAL. FAILURE TO DO THIS CAN LEAD TO EQUIPMENT MISUSE WITH RESULTING SERIOUS PERSONAL INJURY AND/OR DAMAGE. CONTACT YOUR RGC® MARINE DEALER IF YOU HAVE ANY QUESTIONS.**

## 1.2. SAFETY DEFINITIONS

A safety message alerts you to potential hazards that could hurt you or others or cause property damage. The safety messages or signal words for product safety signs are **DANGER**, **WARNING**, and **CAUTION**. Each safety message is preceded by a safety alert symbol and is defined as follows:

**DANGER:** Indicates an imminently hazardous situation that, if not avoided, **will** cause death or serious injury. This safety message is limited to the most extreme situations.

**WARNING:** Indicates a potentially hazardous situation which, if not avoided, **could** result in death or serious injury.

**CAUTION:** Indicates a potentially hazardous situation which, if not avoided, **may** result in minor or moderate injury. It may also be used to alert against unsafe practices and property-damage-only accidents.

## 1.3. EQUIPMENT SAFETY LABELS

These labels warn you of potential hazards that could cause injury. Read them carefully. If a label comes off or becomes illegible, contact a Reimann & Georger Corporation dealer for a free replacement.

## 1.4. EQUIPMENT AND PERSONNEL SAFETY

1. When lifting any part of this equipment, be sure of your footing, bend your knees and lift with your legs, and hold the equipment close to your body while lifting.
2. Do not use the lift, control box, or the remote control if any item shows any signs of damage. Immediately replace any components found to be defective.
3. Do not expose the internal control box components or remote control to water or inclement weather conditions. Do not store any articles in the control box, as this can damage the pump or electrical system.
4. Understand the use of all controls and connections provided with the control box.
5. Never operate the lift with a substitute hydraulic power supply. Use only the control box provided with the lift.
6. Do not allow persons other than authorized service personnel to repair any part of this equipment.
7. All hydraulic power unit accessories such as A/C charger, solar panel, solar panel mounting bracket, and power unit shelf bracket shall be commercially manufactured, and shall be properly maintained and installed. Consult the manufacturer's separate instructions provided for these accessories.
8. Poor or improper maintenance could lead to equipment damage or failure.

## 1.5. OPERATING SAFETY

1. Do not operate the equipment while under the influence of drugs, alcohol, or medication.
2. Before allowing anyone to operate the lift, be certain they fully understand the proper operating procedure.
3. Never adjust or service the lift during operation or while connected to the control box. Completely lower the lift before making any repair or adjustment.
4. Do not adjust the components in the control box while operating the lift. Never operate the remote control or hydraulic power unit when connecting or disconnecting hydraulic hoses.
5. At end of operation, secure the control box and the lift to prevent unauthorized use. Never assume you will find the equipment in the same condition in which you left it.

## 2. SPECIFICATIONS

### 2.1. TECHNICAL DATA

P/N	Control Box Model	Applications	Maximum Pressure (psi)	Pump Flow at full load (GPM)	Approximate Control Box Weight (lbs, less battery)
4136124	HL 12V	HL6k-9k	2300	2.25	60
4136125	HL 12V Mini	HL2k	2300	0.75	40
4136127	HL 12V	HL6k-9k	2300	2.25	60
4136128	HL 12V Mini	HL2k	2300	0.75	40
4136130	HL 12V 3000 PSI	HL9k (stainless cylinder models)	3000	2.0	60
3641618	HVL 12V	HVL5k-7k	3000	1.8	60
3641671	HVL 12V Std	HVL5k-7k	2700	2.25	60

All control boxes come with 12V electric motor, Bucher hydraulic pump unit, and 12V GEM remote controllers.

### 2.2. NAMEPLATE AND SERIAL NUMBER TAG

It is important to identify your lift completely and accurately whenever ordering spare parts or requesting assistance in service. There are two product nameplates for each lift; the nameplate on the HL lift is located at the top of the Right-Hand Forward Lift Arm, the nameplate on the HVL lift at the top of 'B' leg and another nameplate inside the control box. Each label shows the model and serial numbers and capacity rating. The lift label should appear as the sample nameplate shown in Figure 2-1. Record your own lift information from both nameplates below for future reference.

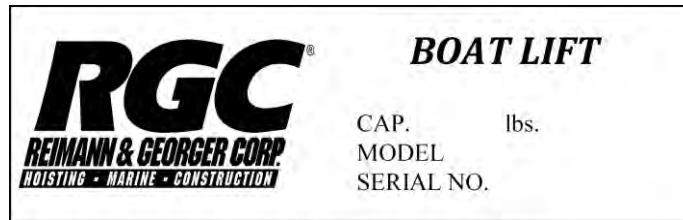


Figure 2-1 Typical Product Nameplate

#### HYDRAULIC LIFT NAMEPLATE INFORMATION

MODEL \_\_\_\_\_

SERIAL NUMBER \_\_\_\_\_

CAPACITY RATING \_\_\_\_\_

#### CONTROL BOX NAMEPLATE INFORMATION

MODEL \_\_\_\_\_

SERIAL NUMBER \_\_\_\_\_

CAPACITY RATING \_\_\_\_\_

## 2.3. OPTIONAL EQUIPMENT

The following options are available which enable you to customize your lift for your particular operation. Installation instructions are provided as part of each option kit.

1. **AC Charger**—Provides an additional method of recharging 12 volt DC battery. Compensating for either high usage of boat lift, or insufficient solar energy to recharge battery completely.
2. **12V DC Solar Panel**—Provides an additional method of recharging the 12 volt DC battery. Compensating for either high usage of boat lift, or lack of an electric power source to recharge battery completely.
3. **Solar Panel mounting bracket kit**—Provides a mounting of the solar panel above the canopy. The solar panel bracket mounts on the vertical canopy extension leg and can be positioned to optimize afternoon sun.

## 2.4. BATTERY OPTIONS

1. One BCI Group Size 27 Marine Deep-Cycle Battery, with at least 160 minutes Reserve Capacity rating. We recommend the following batteries: U.S. Battery Model 27 TMX, Trojan Battery Model 27 TMX or Rolls Battery Engineering Model 27112XJM. Marine batteries have a typical service life of 1-3 years in boat lift applications.
2. One 12V lithium battery with at least 300 Amp continuous discharge rating, and a nominal capacity of at least 100 Ah (1.2KWh), along with a suitable charger.

Such batteries are typically rated for 10 years or >10,000 cycles of the boat lift, can be stored outdoors in winter to -50°F at any state of charge, and can store more energy than lead-acid batteries for use on consecutive cloudy days. The disadvantages of lithium batteries are the high up-front cost, and slow to no charging when the battery is below 41°F.



### **WARNING:**

**FOLLOW THE SAME SAFETY RULES WHEN WORKING INSIDE THE POWER SUPPLY BOX AND AROUND THE BATTERY THAT APPLY TO ANY CAR OR BOAT BATTERY. A BATTERY CAN EXPLODE AND CAUSE PERSONAL INJURY AND/OR EQUIPMENT DAMAGE.**

### 3. INSTALLATION AND SETUP

#### 3.1. MAKING POWER CONNECTIONS

1. Refer to the boat lift manual for important installation and safety information relating to your boat lift.
2. Before making any hydraulic connections, inspect all hydraulic lines, fittings and hoses for leaks and risks of rupture as follows:
  - a. Inspect each hydraulic line, fitting, and hose for breaks, cracks, worn spots, bulges, chemical attack, kinks or any other damage. Never try to stop any detected leak with any body parts. Do not put your face close to suspected leaks. Hold a piece of cardboard close to suspected leaks and then inspect the cardboard for signs of hydraulic oil.
  - b. Replace a damaged line, fitting or hose immediately. Never repair the part.



**WARNING:**

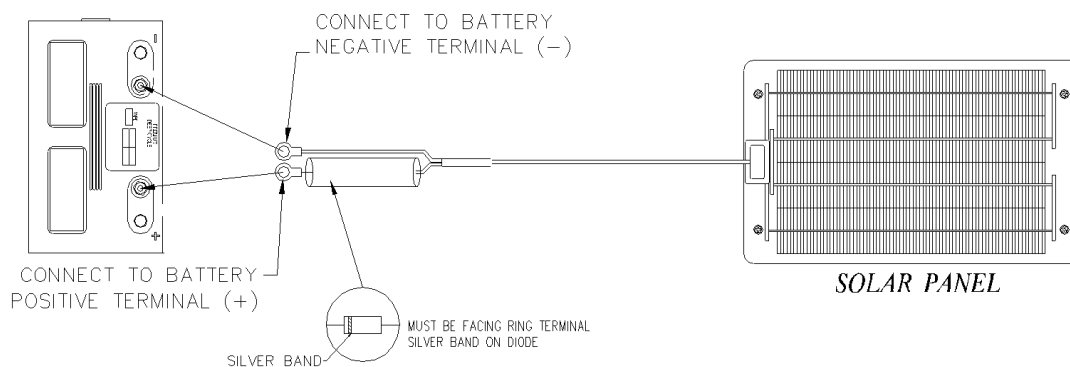
**LIQUID UNDER HIGH PRESSURE CAN PIERCE THE SKIN, CAUSING DEATH OR SERIOUS INJURY. IN CASE OF INJURY, GET IMMEDIATE MEDICAL ATTENTION.**

3. Remove the shipping cap from the hydraulic fluid reservoir and replace it with the included breather cap.



**WARNING: THE SHIPPING CAP MUST BE REMOVED PRIOR TO OPERATION TO PREVENT DAMAGE TO THE HYDRAULIC RESERVOIR. LIQUID UNDER HIGH PRESSURE CAN PIERCE THE SKIN, CAUSING DEATH OR SERIOUS INJURY. IN CASE OF INJURY, GET IMMEDIATE MEDICAL ATTENTION.**

4. Wipe the mating surfaces of the hose couplings as well as the control box couplings with a clean rag prior to making connection. Insert the hoses through the flexible cable boot in the back of the control box. Connect the hose couplings. The quick disconnects supplied are screw to connect and can be connected under pressure. If the quick connect fittings are difficult to attach, relieve some of the pressure by pushing in on the tip of the male hose connector, for example by pressing the connector against a clean, hard surface. Use caution not to damage the fitting.
5. Install the battery in the control box. Attach the red battery lead to the positive battery terminal, and the black lead to the negative terminal. Tighten each wing nut with a pair of pliers, as even a slightly loose connection can cause the battery terminals to heat up. Keep battery terminals clean with a corrosion protective coating.
6. Verify that the system is switched “on” using the on/off switch located inside the power supply box on the side of the electrical control box. Ensure that the hydraulic fluid reservoir does not run empty during operation.
7. If the optional solar panel is supplied, the solar panel must be mounted in a suitable location. Mount the solar panel so that it faces toward the south and angled toward the midday sun. Route the cable of the solar panel through the flexible cable boot in the back of the control box. Connect the red wire to the positive terminal. Connect the black wire to the negative terminal.



8. If the optional Dual 12/24V charger is supplied, mount the charger inside the box. Connect charger output #1 to the battery: the red wire to the positive battery terminal and connect the black wire to the negative terminal. Run the AC power cord through the flexible cable boot in the back of the control box and plug the AC charger in.

## 4. OPERATION & MAINTENANCE

Refer to your boat lift manual for information about safe operation. Press the “up” button on the remote control to raise the lift, and the “down” button to lower the lift.

To toggle the accessory lights (if equipped), hold the “up” and “down” buttons simultaneously.

If the 12V marine battery in the control box is low on charge, the lift will not respond to the remote control. Use the “up” and “down” buttons located on the remote control receiver unit inside the control box, and recharge the 12V battery.

### 4.1. BATTERY MAINTENANCE

1. Avoid dipping below 50% battery state of charge. This will greatly shorten the life of the batteries. If the solar panel is unable to keep the batteries charged, we recommend the A/C charger option. A larger solar panel may be sufficient, but solar may not be practical for daily boat lift usage in cloudy climates.
2. The following table lists maximum monthly full lifting cycles (down and up), using a single solar panel, to keep the battery capacity at a steady state energy level. The capacity of the batteries will allow for additional cycles for any particular month. The values assume all-day exposure with typical seasonal weather.

Month	Cloudy northern climate	Sunny southern climate
January	2 cycles	27 cycles
February	8	29
March	14	29
April	18	31
May	21	27
June	22	25
July	24	28
August	24	31
September	19	29
October	12	29
November	4	28
December	1	25

If the solar panel does not keep the battery charged, try any of the following:

- a. Move the solar panel to an area with less obstructed sunlight.
  - b. Install a larger (or additional) solar panel, or add an AC charger.
  - c. Booster charge the battery at mid-season.
3. For serviceable lead-acid batteries, check water level in battery every three months. If the water level is low, fill it up with distilled water. Booster charge the battery with a 2A charge using a 10A charger in the beginning and end of the season.

## **4.2. REMOTE CONTROL INFORMATION**

The remote transmitter can de-program due to either a power loss (dead battery) or electrical interference, which will require re-programming of the transmitter.

Proper function of the RC system is dependent upon several factors that are not controllable by the manufacturer. RGC is not responsible for the following: Improper installation, Low battery, Natural occurrences, Use other than intended, Location of panel, receiver or transmitter too close to interfering metal objects, Multiple RC panels within 15 feet of each other, Use in area with external interference such as radio, cell phone, and TV towers or a natural magnetic field, Blocked or shielded antenna, Other transmitter interference from cell phones, cordless phones, wireless systems, CB and mobile transmitters, computer and industrial equipment, electric motors, even fluorescent lights.

### **Reprogramming Your GEM Remote Control (yellow transmitter with 3 blue buttons)**

In the event that you may need to reprogram your remote control unit, please follow these instructions:

1. Press the LEARN button once and release located on the GEM control box mounted inside the fiberglass dock box.
2. Press the STOP button within 5 seconds of pressing the LEARN button to program the transmitter.

The remote controller may be equipped with a “COIL” button. See the Troubleshooting section for more information.

## **4.3. ANNUAL INSPECTION**

At least once a year, the lift must be inspected using the following procedure. Do not allow anyone to use the lift until this maintenance is completed.

1. Inspect all hydraulic lines, fittings, and hoses for leaks and risk of rupture.
  - a. Inspect each hydraulic line, fitting, and hose for breaks, cracks, worn spots, bulges, chemical attack, kinks, or other damage. Never try to stop any detected leak with body parts. Do not put your face close to any suspected leak. Hold a piece of cardboard close to suspected leaks and inspect the cardboard for signs of hydraulic oil.
  - b. Replace any damaged lines, fittings, or hoses immediately. Never repair the part.

## **4.4. STORAGE PROCEDURE**

1. Disconnect and store battery fully charged to prevent from freezing.
2. If temperatures below -20°F (-29°C) are expected, then disconnect all hydraulic cylinders, hoses, and control box and store these parts in a warm, dry area.



## 4.5. HYDRAULIC SYSTEM FLUSH

It is recommended that as part of an annual maintenance program, the hydraulic system be drained and fresh Vegetable Grade hydraulic oil installed. RGC recommends CITGO Aqua Marine Hydraulic 46, GULF GREEN NS AW 46 (or equivalent biodegradable oil) be used.



### **WARNING:**

**LIQUID UNDER HIGH PRESSURE CAN PIERCE THE SKIN, CAUSING DEATH OR SERIOUS INJURY. IN CASE OF INJURY, GET IMMEDIATE MEDICAL ATTENTION.**



### **WARNING:**

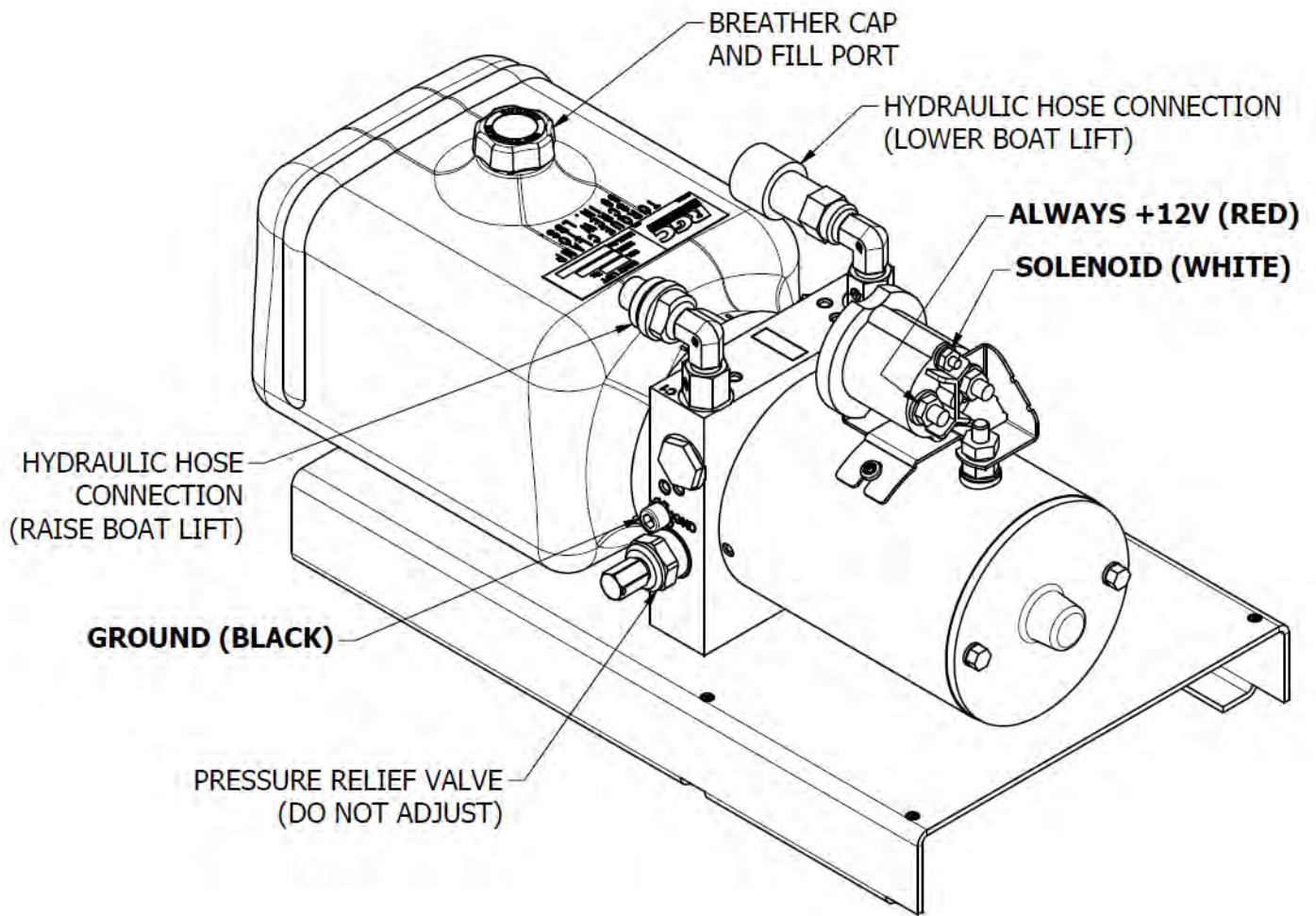
**FOLLOW THE SAME SAFETY RULES WHEN WORKING INSIDE THE CONTROL BOX AND AROUND THE BATTERY THAT APPLY TO ANY CAR OR BOAT BATTERY. A BATTERY CAN EXPLODE AND CAUSE PERSONAL INJURY AND/OR EQUIPMENT DAMAGE.**

1. Lower the platform until the cylinder is fully retracted.
2. Disconnect couplings between cylinder hoses and control box.
3. Unscrew reservoir oil fill cap.
4. Siphon old oil from reservoir using a hand siphon or vacuum pump. If not available, remove the 12-volt battery from control box, and very carefully tip over the control box to drain oil from reservoir into a bucket.
5. Remove reservoir from pump assembly to inspect oil filter screen. Be careful not to damage O-ring seal for reservoir. If necessary, clean the filter screen with soap and water.
6. Reassemble reservoir and pump assembly, then fill reservoir with fresh CITGO Aqua Marine Hydraulic 46.
7. Depressurize cylinder hoses as follows:
  - a. Depressurize the cylinder hose with male coupling by wrapping a rag around the coupling (to prevent spray) and carefully pressing the end button against a hard flat surface. Use caution to avoid damaging the coupling button.
  - b. Depressurize the cylinder hose with female coupling by wrapping a rag around coupling (to prevent spray) and carefully press the internal button using a 3/8" bolt. Be very careful not to damage the internal O-rings. Be sure that both couplings are kept clean at all times.
9. Clean the lower cylinder hose coupling and reconnect to the control box.
10. Connect a spare coupling or remove quick-disconnect from the upper cylinder hose assembly.
11. While holding open hose end over a suitable container, press the UP button until cylinders are fully extended.
12. Reverse the hoses so that the spare fittings are on lower cylinder hose.
13. Be sure to keep reservoir filled with new oil.
14. While holding open hose end over a suitable container, press the DOWN button until cylinders are fully retracted.
15. Repeat steps 10 to 13 until oil coming from disconnected hose is clean. Then reconnect hose couplings to control box.
16. As these procedures are performed, additional oil may need to be added to the reservoir. Perform a final check of oil level with cylinders fully retracted.

## 5. TROUBLESHOOTING

The following chart is intended to assist with troubleshooting the most common issues with control boxes. Note: Disassembling the power supply may invalidate its warranty. Consult manufacturer's warranty before attempting any repair or maintenance.

Symptom	Condition	Possible Cause
Control box does not operate using remote control	Control box operates using up/down buttons inside control box	<p>Battery is low – remote control is designed to stop operating when battery voltage drops below about 11V. Charge the battery, and troubleshoot why battery is not charging. Operating the control box with low battery voltage can cause damage to the electric motor.</p> <p>Remote control transmitter battery needs replacement.</p> <p>Remote control transmitter is too far from control box or excessive RF interference is present.</p>
	Control box does not operate using buttons inside control box	<p>Battery is dead – charge and replace as necessary.</p> <p>Fuse is blown – replace fuse and check for low battery voltage, improper wiring connections, or other malfunction.</p> <p>Check for loose or damaged wiring. Use a voltmeter to verify +12V at motor solenoid while holding “up” or “down” button. Hold a non-magnetized steel tool near the end of the coil to verify the coil becomes magnetic when holding “down” button.</p>
Lift goes up but not down	Battery is fully charged	<p>Hydraulic up/down valve may be stuck. Hold “coil” button on the side of the RC receiver (if so equipped. If “coil” button is not present, then temporarily disconnect wire from RC unit to motor solenoid.) and press the “down” button. This should cause the coil to operate without the motor, which may allow the valve to be freed. Check the reservoir for contamination and consider performing a hydraulic system flush.</p>
Battery does not keep a charge	Solar panel in use	<p>Verify that solar panel gets adequate light. The solar panel should ideally be installed facing south, and should not be shaded, especially during the late morning and early afternoon.</p> <p>Verify that the solar panel is working – 12V panel voltage should be 25-30V in direct sunlight when solar panel is unplugged.</p> <p>Supplemental charging with an AC charger may be required, or a larger solar panel may be desired, if sunlight is too scarce or the panel is too small for the frequency of boat lift use.</p> <p>Battery may need replacement.</p>
	AC charger in use	<p>Verify that the charger is working – system voltage should be 12.8V to 14.4V during charging.</p> <p>Battery may need replacement.</p>
Battery terminals get hot		<p>Verify terminal and cable are clean, and battery cable nut is tight.</p>
Fluid overflows reservoir		<p>It is normal to see some fluid overflow from the reservoir when the lift is cycled the first few times.</p>
Can't disconnect hoses		<p>System is pressurized. Depressurize the hoses as follows:</p> <ul style="list-style-type: none"> <li>• Depressurize the male fitting by carefully pressing the button on the end of the nipple or by briefly tapping the down switch. Use caution to avoid damaging the nipple button.</li> <li>• Depressurize the female fitting by tapping the “up” switch briefly, which will depressurize the pump. If necessary, depressurize the female fitting on the hose by carefully pressing the internal button using a 3/8” bolt. Be careful not to damage the internal O-rings. Wrap the fitting with a rag while depressurizing to prevent spray.</li> </ul>



Note: The pressure relief valve comes already adjusted to the correct pressure setting as indicated in section 2.

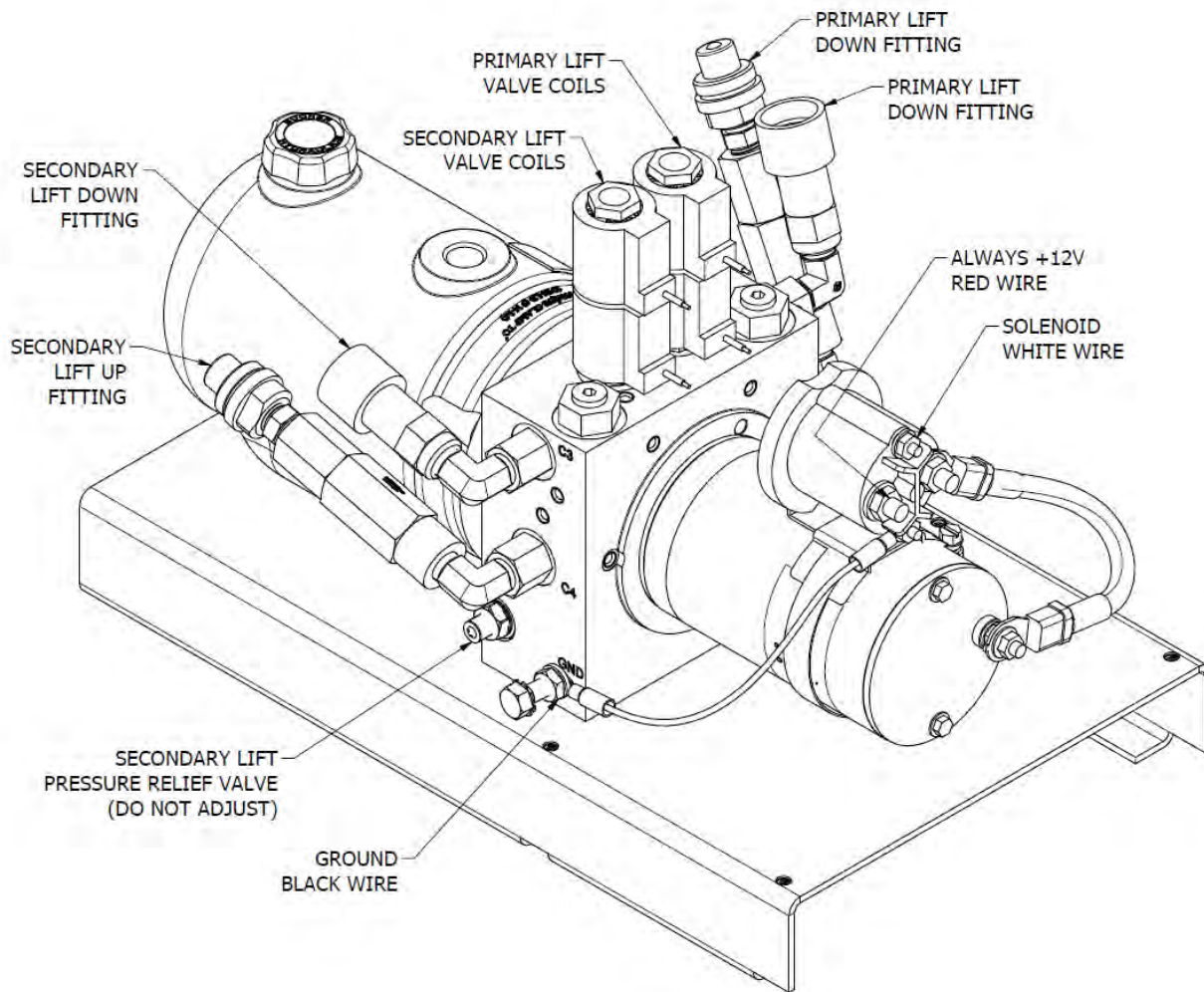
To test the pressure produced by the pump unit, disconnect the boat lift hydraulic hoses, attach a 0-3000 psi hydraulic pressure gauge to either port, and push “up” or “down” to operate the pump unit.

## 6. DUAL MINI CONTROL BOXES

The dual mini control box allows two mini hydraulic boat lifts to be operated with the same control box and the same remote controls.

The lift defaults to controlling the primary lift. Press the “AUX” button on the remote to switch to controlling the secondary lift. Wait ten minutes or press “AUX” to switch back to controlling the primary lift.

The electrical and hydraulic connections for the dual mini pump unit are shown below.



## 7. PARTS LISTS

Each reference number or letter in the following parts lists can be matched with the reference number or letter referred to in both the text and illustrations of Section 6.

### 7.1. 12VDC MINI POWER UNITS

REF #	QTY	DESCRIPTION	P/N
1	1	12VDC HYDRAULIC PUMP UNIT	6941335
2	1	BASE BOARD	7841078
3	1	REMOTE CONTROL UNIT	4107870
4	2	REMOTE CONTROL UNIT MOUNTING ASSY	3654107
5	1	HL/HVL CONTROL BOX ENCLOSURE SMALL	4136204
6	1	BATTERY CABLE BLACK 16"	5441115
7	1	BATTERY CABLE RED 25.5"	5441120
8	1	TAG MODEL "BOAT LIFT"	6206211
9	2	ADAPTER 9/16SAEM X 1/4NPTF	5611135
10	2	ADAPTER 90D 1/4NPTM X 1/4NPTM	5611138
11	1	WASHER FLAT EXT TOOTH 5/16"CZP	5806402
12	4	HHCS 5/16-18 X 3/4 SS	5896222
13	4	COUPLING 1/4 NPT FEMALE (SCREW STYLE)	6041364
14	4	COUPLING 1/4 NPT MALE (SCREW STYLE)	6041365

### 7.2. 12VDC DUAL MINI POWER UNITS

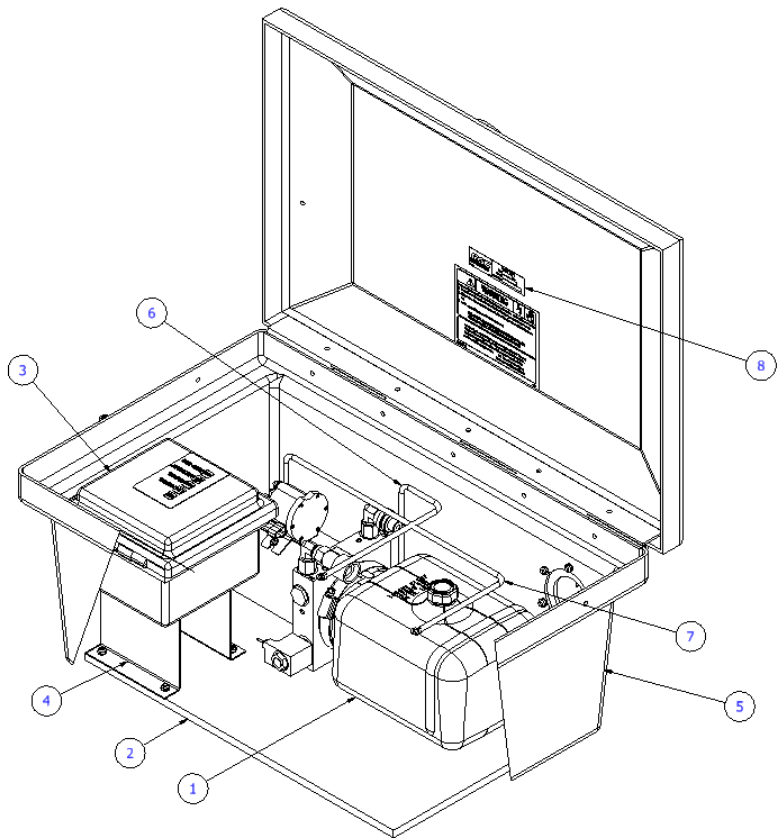
REF #	QTY	DESCRIPTION	P/N
1	1	12VDC HYDRAULIC PUMP UNIT	6941000
2	1	BASE BOARD	3641500
3	1	REMOTE CONTROL UNIT	5441106
4	2	REMOTE CONTROL UNIT MOUNTING ASSY	4107870
5	1	HL/HVL CONTROL BOX ENCLOSURE SMALL	4136204
6	1	BATTERY CABLE BLACK 16"	5441115
7	1	BATTERY CABLE RED 25.5"	5441120
8	1	TAG MODEL "BOAT LIFT"	6206211
9	4	ADAPTER 9/16SAEM X 1/4NPTF	5611135
10	4	ADAPTER 90D 1/4NPTM X 1/4NPTM	5611138
11	1	WASHER FLAT EXT TOOTH 5/16"CZP	5806402
12	4	HHCS 5/16-18 X 3/4 SS	5896222
13	4	COUPLING 1/4 NPT FEMALE (SCREW STYLE)	6041364
14	4	COUPLING 1/4 NPT MALE (SCREW STYLE)	6041365

### 7.3. 12VDC STANDARD POWER UNITS

REF #	QTY	DESCRIPTION	P/N
1	1	12VDC HYDRAULIC PUMP UNIT	6941334
2	1	BASE BOARD	7841078
3	1	REMOTE CONTROL UNIT	7841078
4	2	REMOTE CONTROL UNIT MOUNTING ASSY	3654107
5	1	HL/HVL CONTROL BOX ENCLOSURE SMALL	4136204
6	1	BATTERY CABLE BLACK 16"	5441115
7	1	BATTERY CABLE RED 25.5"	5441120
8	1	TAG MODEL "BOAT LIFT"	6206211
9	2	ADAPTER 9/16SAEM X 1/4NPTF	5611135
10	2	ADAPTER 90D 1/4NPTM X 1/4NPTM	5611138
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14	4	COUPLING 1/4 NPT MALE (SCREW STYLE)	6041365

### 7.4. CONTROL BOX COMPONENT IDENTIFICATION

ID	Component
1	Pump unit
2	Base board
3	Remote control assembly
4	Remote control unit mounting assembly
5	Enclosure
6	Battery cable
7	Battery cable
8	Labels



# LIMITED PRODUCT WARRANTY

Reimann & Georger Corporation

Marine Products

RGC Marine products, hereafter referred to as the “Manufacturer”, extend this limited warranty to the original purchaser of this product. The original purchaser, hereinafter referred to as the “Buyer”, is defined as the first legal owner of this product other than an authorized distributor or dealer who has bought the product from the Manufacturer for resale to the public. **The Buyer must complete and return the Warranty Registration section of the provided Warranty Card to make this limited warranty effective.**

## CONSUMER PRODUCT PROVISIONS

**I. ARTICLE I—CONSUMER PRODUCT PROVISIONS: THE FOLLOWING PROVISIONS SHALL BE APPLICABLE IF THIS PRODUCT IS BEING PURCHASED FOR PERSONAL, FAMILY OR HOUSEHOLD PURPOSES.**

**THE CONSUMER PRODUCT PROVISIONS CONTAINED IN THIS ARTICLE I SHALL APPLY UNLESS THIS PRODUCT IS BEING PURCHASED SOLELY FOR COMMERCIAL OR INDUSTRIAL USE, IN WHICH EVENT THE PROVISIONS CONTAINED IN ARTICLE II BELOW SHALL APPLY AND THE PROVISIONS CONTAINED IN THIS ARTICLE I SHALL BE INAPPLICABLE.**

### **A. 1-YEAR LIMITED WARRANTY**

The Manufacturer warrants to the Buyer that all supplied parts shall be free of defects in material and workmanship for a period of one (1) year from date of original purchase. This limited warranty covers the cost of all parts and labor needed to repair any item that is found to be defective in material and workmanship. Items covered include hydraulic unit, cylinders, hoses, bearings and remote control.

### **B. 15-YEAR LIMITED WARRANTY ON HL SERIES ALUMINUM FRAME EXTRUSION**

The Manufacturer warrants to the Buyer that the frame and extrusions shall be free of defects in material and workmanship for a period of fifteen (15) years from date of original purchase. This limited warranty covers the cost of all parts and labor needed to repair any item that is found to be defective in material and workmanship.

### **C. MANUFACTURER’S OBLIGATIONS**

The Manufacturer’s sole obligation under either of these limited warranties is the replacement or repair, at the Manufacturer’s discretion, of parts found to be defective.

### **D. NO SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES**

**IN NO EVENT SHALL THE MANUFACTURER BE LIABLE TO THE BUYER OR ANY PERSON FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL LOSSES OR DAMAGES CONNECTED WITH THE USE OF THE PRODUCT UNDER WARRANTY. SUCH DAMAGES FOR WHICH THE MANUFACTURER SHALL NOT BE RESPONSIBLE INCLUDE, BUT ARE NOT LIMITED TO, LOST TIME AND CONVENIENCE, LOSS OF USE OF THE PRODUCT, THE COST OF A PRODUCT RENTAL, COSTS OF GASOLINE, TELEPHONE, TRAVEL, OR LODGING, THE LOSS OF PERSONAL OR COMMERCIAL PROPERTY, AND THE LOSS OF REVENUE.**

Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

### **E. NO LIABILITY IN EXCESS OF PURCHASE PRICE**

**IN NO EVENT SHALL THE MANUFACTURER’S OBLIGATIONS UNDER THIS LIMITED WARRANTY EXCEED THE PURCHASE PRICE OF THE PRODUCT.**

**F. NO EXTENSION OF STATUTE OF LIMITATIONS**

**ANY REPAIRS PERFORMED UNDER EITHER OF THESE WARRANTIES SHALL NOT IN ANY WAY EXTEND THE ONE-YEAR AND FIFTEEN-YEAR STATUTES OF LIMITATIONS CONTAINED IN THIS LIMITED WARRANTY.**

**G. PROCEDURE FOR WARRANTY PERFORMANCE**

If the product fails to perform to the Manufacturer's specifications, the Buyer must contact the dealer from whom the product was purchased. The Buyer must provide the dealer with the applicable model and serial numbers, the date of purchase, and the nature of the problem.

**H. PREAPPROVAL OF LABOR COSTS**

All labor costs related to a dealer's performance of the warranty obligations under this limited warranty must be pre-approved by Reimann & Georger Corp. Marine Products.

**I. NO OTHER EXPRESS WARRANTIES**

**THE MANUFACTURER IS NOT SUBJECT TO ANY EXPRESS WARRANTIES OTHER THAN THOSE SET FORTH ABOVE.**

**J. LIMIT ON DURATION OF IMPLIED WARRANTIES**

**THE DURATION OF ANY IMPLIED WARRANTIES UNDER APPLICABLE STATE LAW RELATING TO THE PURCHASE OF THIS PRODUCT SHALL BE LIMITED TO A PERIOD OF ONE (1) YEAR FROM THE DATE OF PURCHASE.**

Some States do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

**K. QUESTIONS REGARDING LIMITED WARRANTY**

Any questions regarding this limited warranty or the procedure which the consumer should follow in order to obtain performance of any warranty obligation may be addressed to either the dealer from whom this product is purchased or to Reimann & Georger Corp. Marine Products, P.O. Box 681, Buffalo, NY 14240.

**L. EXCLUSIONS FROM LIMITED WARRANTY. THIS LIMITED WARRANTY DOES NOT COVER ANY OF THE FOLLOWING:**

1. Equipment which has been abused, damaged, used beyond rated capacity, or which is damaged or has defects caused by repairs or service completed by persons other than authorized service personnel.
2. Costs of repairing damage caused by environmental factors which include, but are not limited to, airborne fallout, chemicals, tree sap, salt, ocean spray, and water hazards.
3. Damage caused by acts of God which include, but are not limited to, hailstorms, windstorms, tornadoes, sandstorms, lightning, floods, and earthquakes.
4. Damage under conditions caused by fire or accident, by abuse or negligence, by improper installation, by misuse, by incorrect operation, by "normal wear and tear", by improper adjustment or alteration, by alterations not done by the Manufacturer, or by failure of product parts from such alterations.
5. Costs of repairing damage caused by poor or improper maintenance, costs of normally scheduled maintenance, or the cost of replacing any parts unless done as the result of a repair covered by your one-year limited warranty.
6. Costs of modifying the product in any way once delivered to the Buyer, even if such modifications were added as a production change on other products made after the Buyer's product was built.

**M. RIGHT TO MODIFY PRODUCT**

The Manufacturer has the right to modify this product at any time without incurring any obligation to make the same or similar modifications on products previously purchased.



**N. NO AUTHORITY TO ALTER WARRANTY**

No agent, representative, distributor or dealer has any authority to alter the terms of this warranty in any way.

**O. SPECIFIC LEGAL RIGHTS**

This warranty gives you specific legal rights and you may also have other rights, which vary, from State to State.

## **COMMERCIAL PRODUCT PROVISIONS**

**II. ARTICLE II—COMMERCIAL PRODUCT PROVISIONS: THE FOLLOWING PROVISIONS SHALL BE APPLICABLE ONLY IF THIS PRODUCT IS BEING PURCHASED SOLELY FOR COMMERCIAL OR INDUSTRIAL USE. IF THIS PRODUCT IS BEING PURCHASED FOR PERSONAL, FAMILY OR HOUSEHOLD PURPOSES, THE PROVISIONS CONTAINED IN THIS ARTICLE II SHALL NOT BE APPLICABLE AND THE PROVISIONS CONTAINED IN ARTICLE I ABOVE SHALL APPLY.**

### **A. 1-YEAR LIMITED WARRANTY**

The Manufacturer warrants to the Buyer that all supplied parts shall be free of defects in material and workmanship for a period of one (1) year from date of original purchase. This limited warranty covers the cost of all parts and labor needed to repair any item that is found to be defective in material and workmanship. Items covered include hydraulic unit, cylinders, hoses, bearings and remote control.

### **B. 5-YEAR LIMITED WARRANTY ON HL SERIES ALUMINUM FRAME EXTRUSION**

The Manufacturer warrants to the Buyer that the frame and extrusions shall be free of defects in material and workmanship for a period of five (5) years from date of original purchase. This limited warranty covers the cost of all parts and labor needed to repair any item that is found to be defective in material and workmanship.

### **C. MANUFACTURER'S OBLIGATIONS**

The Manufacturer's sole obligation under either of these limited warranties is the replacement or repair, at the Manufacturer's discretion, of parts found to be defective.

### **D. NO SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES**

**IN NO EVENT SHALL THE MANUFACTURER BE LIABLE TO THE BUYER OR ANY PERSON FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL LOSSES OR DAMAGES CONNECTED WITH THE USE OF THE PRODUCT UNDER WARRANTY. SUCH DAMAGES FOR WHICH THE MANUFACTURER SHALL NOT BE RESPONSIBLE INCLUDE, BUT ARE NOT LIMITED TO, LOST TIME AND CONVENIENCE, LOSS OF USE OF THE PRODUCT, THE COST OF A PRODUCT RENTAL, COSTS OF GASOLINE, TELEPHONE, TRAVEL, OR LODGING, THE LOSS OF PERSONAL OR COMMERCIAL PROPERTY, AND THE LOSS OF REVENUE.**

### **E. NO LIABILITY IN EXCESS OF PURCHASE PRICE**

**IN NO EVENT SHALL THE MANUFACTURER'S OBLIGATIONS UNDER THIS LIMITED WARRANTY EXCEED THE PURCHASE PRICE OF THE PRODUCT.**

### **F. NO EXTENSION OF STATUTE OF LIMITATIONS**

**ANY REPAIRS PERFORMED UNDER EITHER OF THESE WARRANTIES SHALL NOT IN ANY WAY EXTEND THE RESPECTIVE STATUTES OF LIMITATIONS CONTAINED IN THIS LIMITED WARRANTY.**

### **G. WAIVER OF OTHER WARRANTIES**

**THESE EXPRESS WARRANTIES ARE IN LIEU OF AND EXCLUDE ANY AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OR MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**

### **H. PROCEDURE FOR WARRANTY PERFORMANCE**

If the product fails to perform to the Manufacturer's specifications, the Buyer must contact the dealer from whom the product was purchased. The Buyer must provide the dealer with the applicable model and serial numbers, the date of purchase, and the nature of the problem.

### **I. PREAPPROVAL OF LABOR COSTS**

All labor costs related to a dealer's performance of the warranty obligations under this limited warranty must be pre-approved by Reimann & Georger Corp. Marine Products.

**J. EXCLUSIONS FROM WARRANTY. THIS LIMITED WARRANTY DOES NOT COVER ANY OF THE FOLLOWING:**

1. Equipment which has been abused, damaged, used beyond rated capacity, or which is damaged or has defects caused by repairs or service completed by persons other than authorized service personnel.
2. Costs of repairing damage caused by environmental factors which include, but are not limited to, airborne fallout, chemicals, tree sap, salt, ocean spray, and water hazards.
3. Damage caused by acts of God which include, but are not limited to, hailstorms, windstorms, tornadoes, sandstorms, lightning, floods, and earthquakes.
4. Damage under conditions caused by fire or accident, by abuse or negligence, by improper installation, by misuse, by incorrect operation, by "normal wear and tear", by improper adjustment or alteration, by alterations not done by the Manufacturer, or by failure of product parts from such alterations.
5. Costs of repairing damage caused by poor or improper maintenance, costs of normally scheduled maintenance, or the cost of replacing any parts unless done as the result of a repair covered by your one-year limited warranty.
6. Costs of modifying the product in any way once delivered to the Buyer, even if such modifications were added as a production change on other products made after the Buyer's product was built.

**K. RIGHT TO MODIFY PRODUCT**

The Manufacturer has the right to modify this product at any time without incurring any obligation to make the same or similar modifications on products previously purchased.

**L. NO AUTHORITY TO ALTER WARRANTY**

No agent, representative, distributor, or dealer has any authority to alter the terms of this warranty in any way.

**M. SPECIFIC LEGAL RIGHTS**

This warranty gives you specific legal rights, and you may also have other rights, which vary, from State to State.