

**Lift Mate
Boat Lift Motor
Assembly and Operating Manual**



Packing List

Inspect Shipment

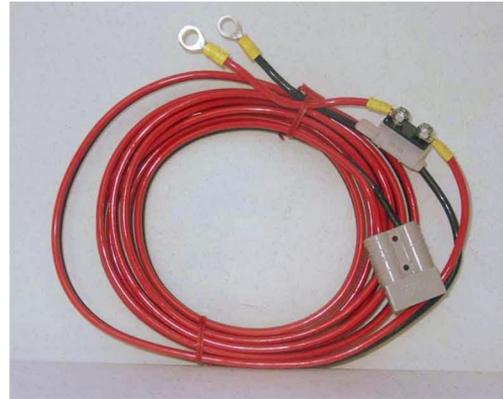
Your boat lift motor was shipped complete with all necessary parts. Remove all items from your shipping box. Note any items lost or damaged in shipment. Note any damage to the shipping box. Refer to the exploded view and parts list in the back of the manual for the part names and numbers of missing or damaged items. Call retailer where purchased if problems exist. Do not proceed with assembly until you have a good understanding of part identification.



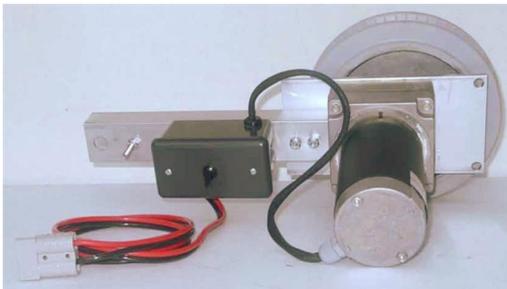
Inner Arm with Bracket



Outer Arm with Pivot Hole



15 Foot Battery Cord
(12 Volt Motor Only)



12 Volt Electric Motor

OR



110 Volt Electric Motor
with GFI Outlet Cord



Parts Bag Contains

- One 12" Lift Mate Bungee (PN: 1014519)
- One 5/8 x 4 Hex Head Pivot Bolt (PN: 1002458)
- One 5/8 Nyloc Hex Nut (PN: 1024332)
- Two 5/16 x 3 Hex Bolts (PN: 1019860)
- Two 5/16 Hex Nuts (PN: 1001807)
- Four 5/16 Washers (PN: 1002608)
- Two 51mm - 127mm Diameter Hose Clamps (PN: 1014564)

READ THROUGH THE ENTIRE MANUAL

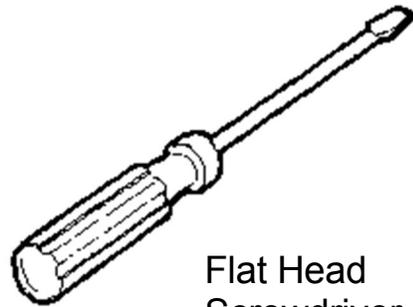
It is recommended to read through the entire manual before beginning your installation. Follow all steps exactly.

Tools Needed

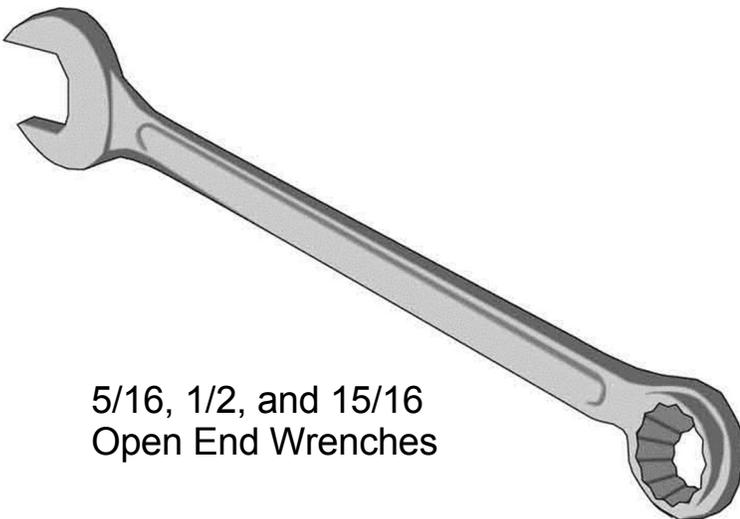
Review the tools needed list here on this page. Gather all tools needed for the assembly of your unit before starting the installation steps.



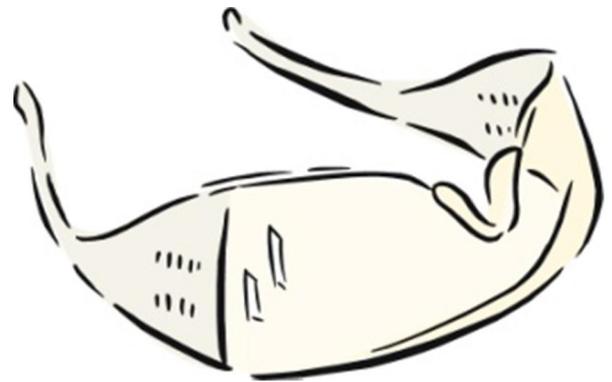
Adjustable Wrench



Flat Head
Screwdriver



5/16, 1/2, and 15/16
Open End Wrenches



Safety Glasses

Plan Your Installation

The Lift Mate is designed to mount on most manufacturers' boatlifts. As a result of its compatibility with all lifts, your first task is to review your particular lift against the assembly instructions included here.

The Lift Mate mounts onto the winch lift post. Locate the winch post on your lift. See Fig. 2 & 3 below.

Stand on your dock in front of your lift. Determine if your winch lift post is a left mount or a right mount. See Fig. 2 & 3.

Note that the Lift Mate motor is mounted so that it is between the left and right lift posts. See Fig. 1, 2, & 3.

Also note that the motor rests against the lift wheel at roughly the 10 or 2 o'clock position. This allows the weight of the motor to rest against the wheel and aid in traction. See Fig. 1, 2, & 3.

Note that when properly mounted on the winch post of the lift, the Lift Mate rubber traction wheel is closest to the dock and the motor is closest to the boat. See Fig. 4.

The motor has two drain holes. The motor is correctly mounted when the drain holes are on the bottom side of the motor. Rainwater will seep into the motor if the motor is mounted with drain holes on top.

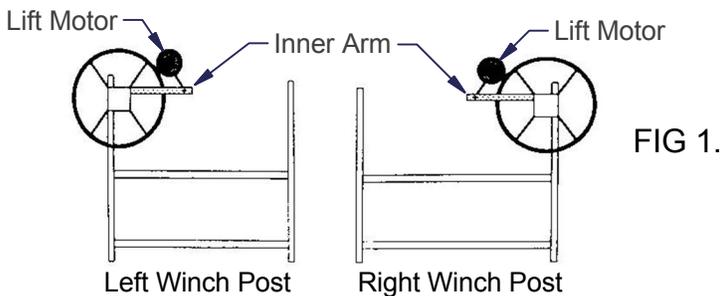


FIG 1.

Correct position of lift motor is between the left and right lift posts in roughly the 10 or 2 O'clock position.

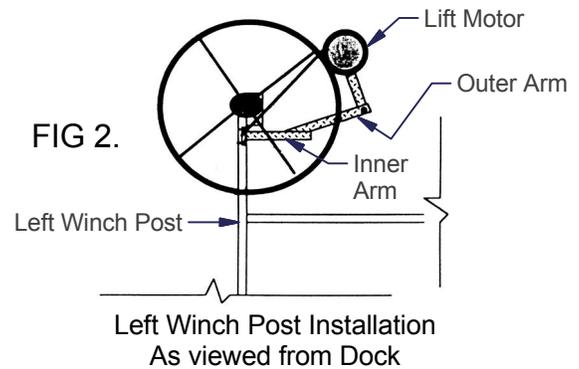


FIG 2.

Left Winch Post Installation
As viewed from Dock

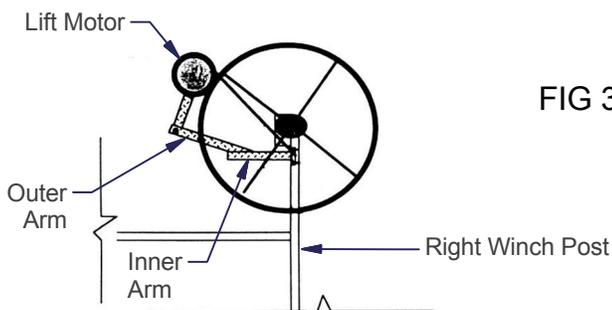


FIG 3.

Right Mount Winch Post Installation
As viewed from dock

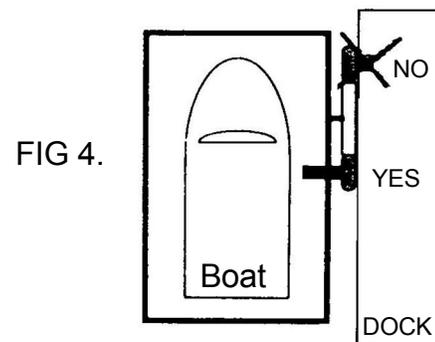
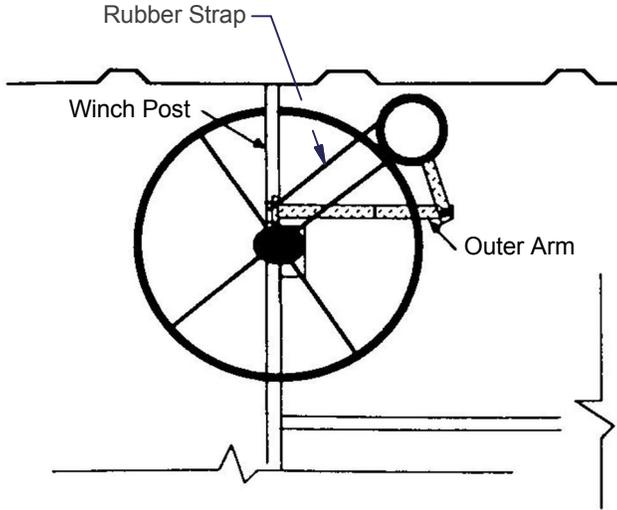


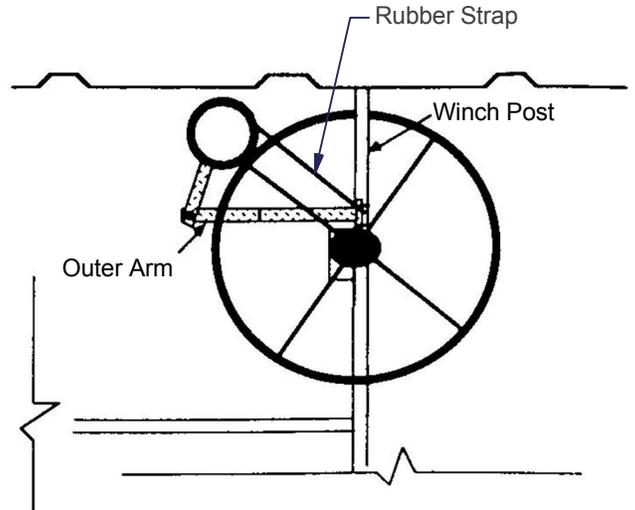
FIG 4.

Correct position of lift motor is when the rubber traction wheel is closest to the dock and the lift motor is closest to the boat.

Rectangular Lift With Canopy

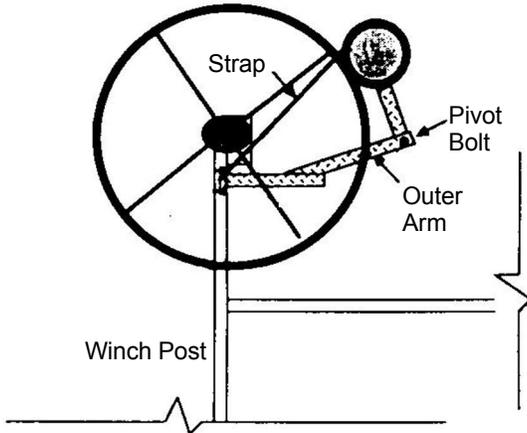


Left Winch Post Installation

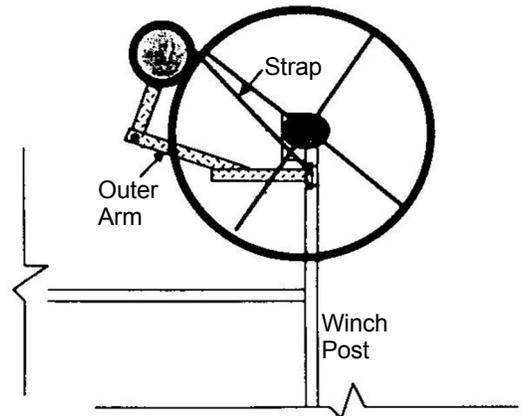


Right Winch Post Installation

Rectangular Lift Without Canopy



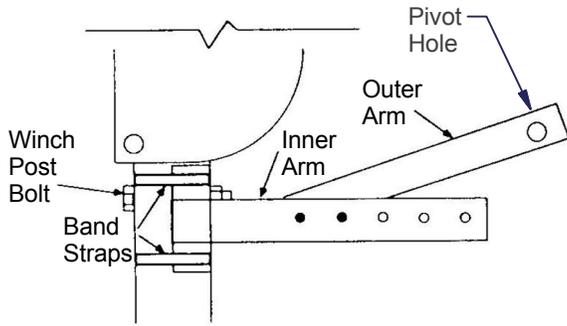
Left Winch Post Installation



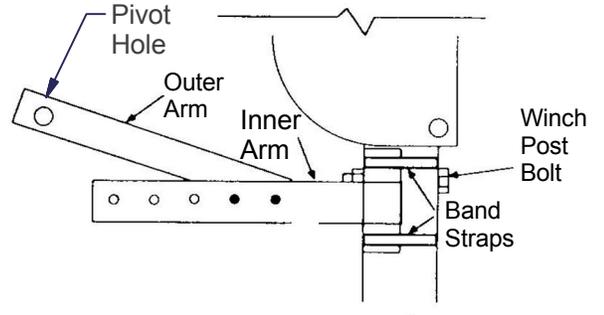
Right Winch Post Installation

Note: For lifts with a canopy, the outer arm can be positioned horizontally to lower the liftmate so it does not interfere with the canopy as shown above.

Aluminum Shore Station

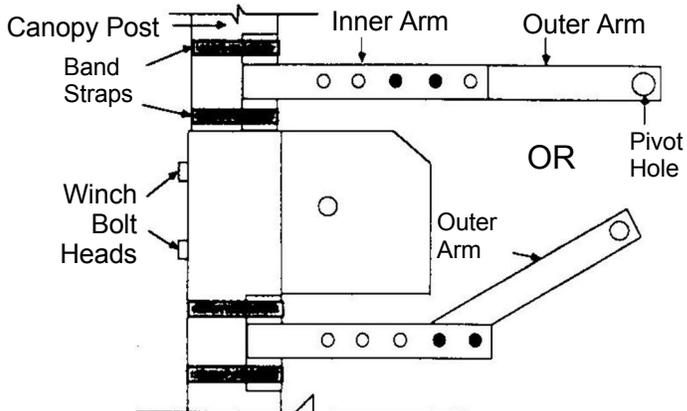


Left Winch Post Installation

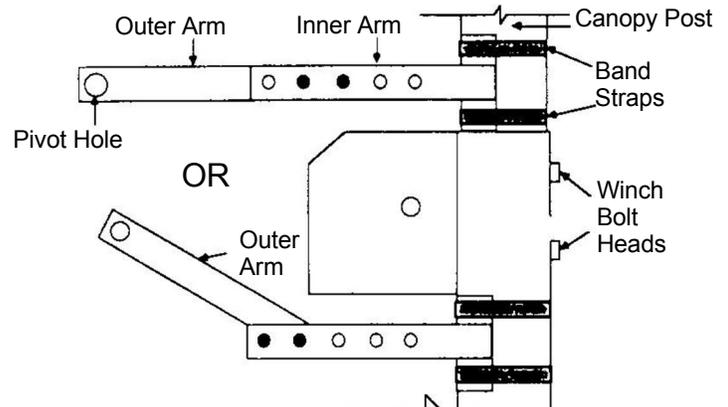


Right Winch Post Installation

ShoreMaster Aluminum Platform Hoists

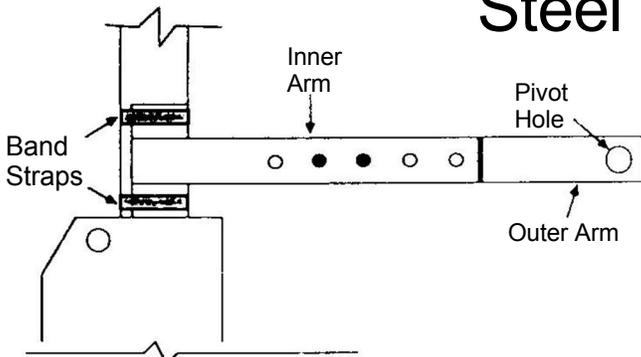


Left Winch Post Installation

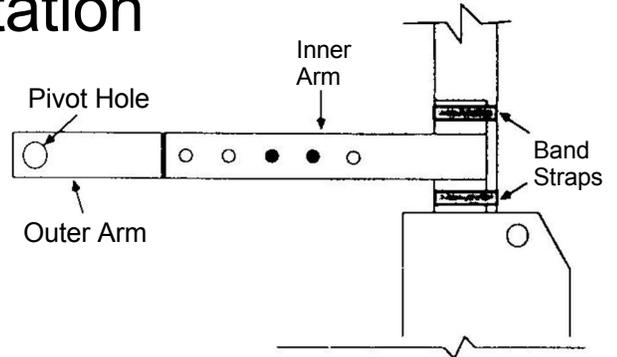


Right Winch Post Installation

Steel Shore Station



Left Winch Post Installation



Right Winch Post Installation

STEP 1: Install Inner Arm

Determine which type of mount you have--a left post install or a right post install. Then refer to the left or right install photos as you are installing the arm.

Mount the inner arm with bracket to the winch post. In this case it is just above the winch box. See FIG. 6 or 7 depending on which type of post mount.

Note: The position of the inner arm will vary from lift to lift. Refer to the miscellaneous drawings/photos on page 6 for specific arm positions on the different types of lifts on the market today.

Fasten the inner arm with the two hose clamps over the angle bracket. Mount one hose clamp on top of angle bracket. Mount the other hose clamp on bottom of angle bracket. See FIG. 8 or 9.

Tighten just enough to hold bracket in place. Further adjustment will occur in a later step.

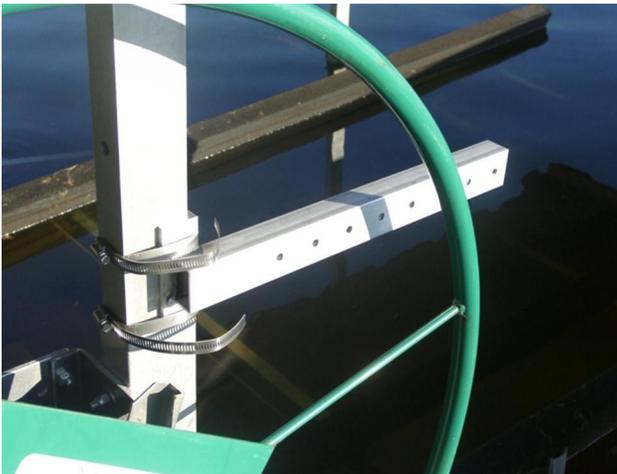


FIG. 6: Left Winch Post Installation View



FIG. 7: Right Post Winch Post Installation

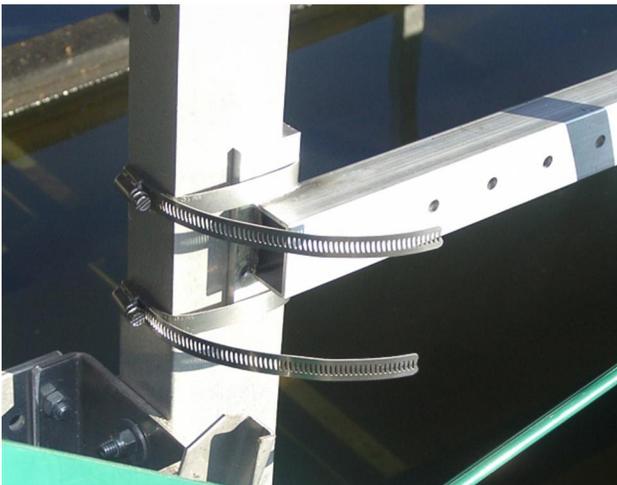


FIG. 8. Left Winch Post Installation View

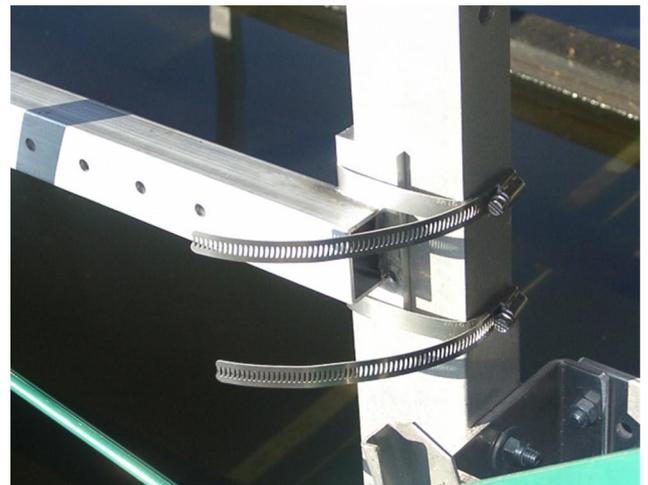


FIG. 9: Right Winch Post Installation

STEP 2: Install Outer Arm Onto Inner Arm

The outer arm can be installed in a variety of configurations. See Fig 12. The outer arm is the transition piece between the inner arm and the lift motor. In the next step, you will mount the lift motor in roughly the 10 or 2 o'clock position. The outer arm position will dictate the lift motor's final position against the wheel.

Note: There may be some trial and error that occurs during this step and the next one.

1. Review Fig. 12. The outer arm can bolt on in a variety of positions. The goal is to mount the motor's rubber wheel so it's touching the lift wheel at roughly the 10 or 2 o'clock position.

Note: On some installs, the arm may need to be positioned downward so the motor is mounted in the 2 or 4:00 o'clock position.

2. View the drawings/photos on page 6 for specific arm positions on the different types of lifts on the market today. By utilizing the nine holes in both the inner arm and outer arm, you can adjust the length and angle positioning of the arms to fit almost any boatlift. The 4 holes in the outer arm will place the outer arm at 15° or 45°.

3. Bolt the outer arm behind and to the inner arm using the (2) 5/16" x 3-1/2" bolts, nuts, and washers. See Fig. 10. The pivot hole on the outer arm should be at least 3", but not more than 8" from the outer edge of the winch wheel.

Note: On some installs, the outer arm may need to go in front of the inner arm. If your boat lift requires a shorter arm length than our standard holes allow, drill (2) 5/16" holes where needed and lowering the arms will help.



FIG. 10: Left Winch Post Installation View



FIG. 11: Right Winch Post Installation View

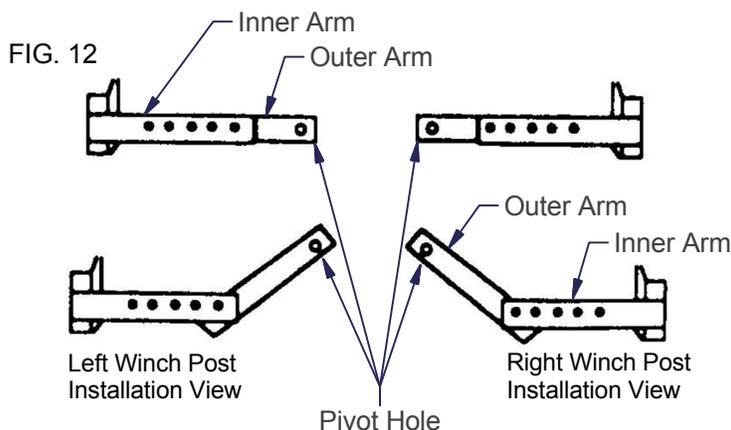
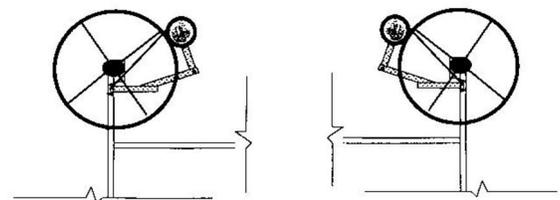


FIG. 12

FIG. 13



The Outer Arm can be installed in many configurations. The outer arm is the transition piece between the inner arm and the lift motor. In the next step, you will mount the lift motor in roughly the 10 or 2 o'clock position. The outer arm position will dictate where the lift motor's final position will be.

STEP 3: Install Motor Arm Onto Outer Arm

1. Run the 5/8" pivot bolt thru the pivot hole in the motor arm with threads away from dock/toward the lift. See FIG. 14 and 15.

2. Run the 5/8" bolt thru the pivot hole in the outer arm and lightly screw on 5/8" nut. See FIG. 14. The motor arm should be in front of the outer arm. See FIG. 14.

3. Rotate the motor up and over the pivot so motor's rubber traction wheel rests on the boat lift wheel. See FIG. 14.

4. The lift motor's rubber traction wheel should be touching the lift wheel at roughly the 10 or 2 o'clock position. See FIG. 14. If the motor is not positioned correctly review Step 2: Install Outer Arm Onto The Inner Arm on the previous page. Adjust the angle of the outer arm until the motor rests near the 10 or 2 o'clock position on the lift wheel. See FIG. 12 & 13.

5. Firmly tighten the band clamps on the winch post using a 5/16" wrench. See FIG. 14.

Note: Lift up on the arms while tightening the band clamps. This will allow you to firmly tighten the clamps.

6. Tighten the 5/8" nut until it just touches the back side of the outer arm. See FIG. 15.

Note: Do not over tighten the nut. The wheels will not align if over tightening occurs.

Note: Each boat lift will have a different sized space at the pivot point. Some lifts will have no space. See FIG. 15. Even if there is some space between the motor arm and the outer arm where it pivots, the grooved rubber traction wheel should follow the boat lift wheel and not jump off. If you feel you need spacers, purchase large nylon washers at your local hardware store and place them between the arms and over the pivot bolt.

7. Hook one end of the black rubber strap into the top hole of the motor plate towards the winch post. Fasten the other end to the open end of the inner or outer arm or directly onto the winch box. See FIG. 16.

Note: Black rubber poly strap fits most but not all applications. Alternates may be purchased at your local hardware store.



FIG. 14



FIG. 15



FIG. 16

STEP 4: Electrical Requirements

⚠CAUTION To avoid the risk of electrical shock, always disconnect power to your dock or lift before installing the product. Before connecting power to the unit, be certain that the primary power supply meets all applicable electrical codes. Only use a GFI outlet for powering your product. Periodically verify proper function of the GFI equipment by manually testing the GFI switch. Electrical service should be performed by a qualified electrician only.

We recommend that you hook the harness to the boat battery on the 12 volt Lift Mate. The boat motor is charging the battery all the time. It is unlikely that the lift motor would drain the battery so you cannot start your boat. Some use a separate 12v battery on the dock. Try to hide the 15' cable in the boat by running it along the side channels, or below the seats, or under the pontoon deck, or under the carpet. See FIG. 17 & 18. Longer cables (pontoon kits) are available at Shoreline Industries. Refer to the parts list in the back of the manual, the options list in the front of the manual, or call your local retailer. Mate the two plastic quick connects and lightly attach the two lead ends (one with a circuit breaker attached) to the battery poles. See FIG. 18. Flip the motor switch "up" to see that the lift wheel rotates in the "up" direction. If not, reverse the leads at the battery and tighten down. See FIG. 17 & 18.

Note: The 12 volt motor is reversible by just changing the leads at the battery.

The 60 AMP circuit breaker is attached to one of the lead ends for safety. See FIG. 18. This breaker must attach to the positive (+) pole.

110 VOLT WIRING

This unit uses a 110 volt 15 amp service. Make sure the unit is connected to an outlet having the same configuration as the plug. No adapter should be used with this unit.

NOTICE Before plugging in your unit make sure it will be connected to a supply circuit that is protected by a circuit breaker. Check with a qualified electrician if the grounding instructions are not completely understood or you are in doubt as to whether the motor is properly grounded.

⚠CAUTION Always properly connect and ground your unit. An improper connection can cause an electrical shock resulting in severe injury or death. If you are unsure of the proper electrical connections or grounding procedures, contact a qualified electrician to perform the installation.



12 VOLT MOTOR
FIG. 17



15 FOOT BATTERY CABLE
FIG. 18



110 VOLT MOTOR
FIG. 19

Operating, Maintenance and Storage Instructions

ON/OFF SWITCH

The Lift Mate has a rocker style on/off switch.

1. Hold the switch up to raise the lift.
2. Hold the switch down to lower the lift.

CAUTION Stay clear of all moving parts during raising and lowering of the lift. There are exposed moving parts that can pinch fingers, causing serious injury.

If the motor wheel chatters or slips during operation, it is just a matter of adding more tension. Adjust the existing rubber strap to increase tension or add additional straps. During a rain or when the wheels are wet from dew or spray, you will most likely experience slippage. The operator may need to assist the big lift wheel by turning on the lift's crank knob.



NOTICE It is recommended to disconnect the power to the Lift Mate when not in use.

MAINTENANCE

The Lift Mate is basically maintenance free with the exception of periodic inspections. It is recommended to periodically inspect the complete unit.

Refer to the following Inspection List:

CAUTION To avoid risk of electrical shock or personal injury disconnect the power to Lift Mate when performing maintenance procedures.

1. Tighten all hardware.
2. Inspect rubber traction wheel for proper alignment. Align if required.
3. Inspect motor brushes and replace as needed.
4. Inspect rubber poly strap for proper tension. Repair or replace as needed.
5. Inspect electrical connections for worn or frayed connections. Repair or replace as needed.

OFF SEASON STORAGE

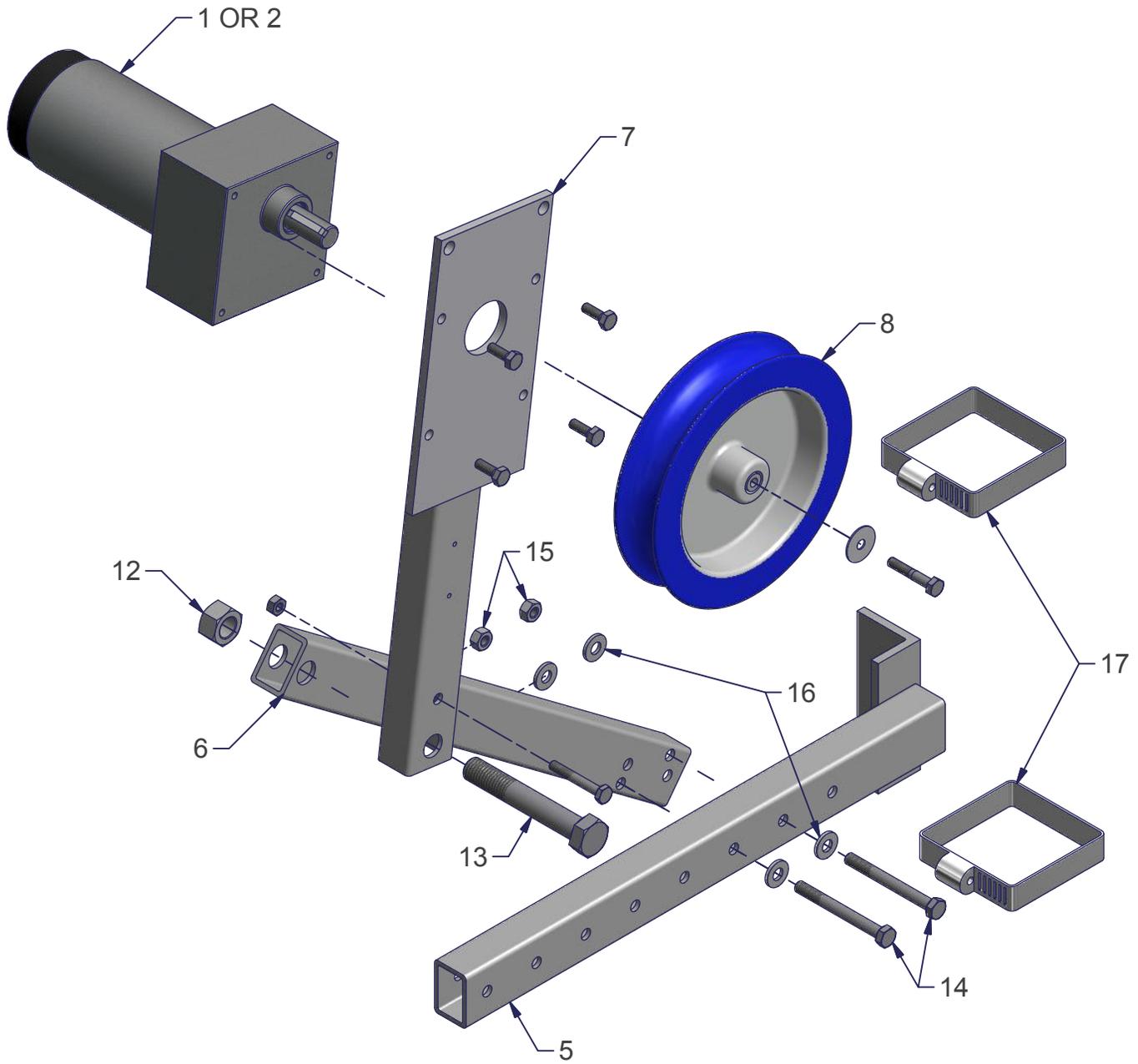
It is recommended to remove the motor from the outer arm and store in a dry place during the off season.

Parts List

Item Number	Part Number	Description	QTY.
1	1015901	12 Volt Motor	1
2	1015900	110 Volt Motor	1
3	1014376	15 Foot Battery Cable (12 Volt Only)	1
4	1014387/1014467	18" Outlet Cord and 6" GFI Cord (Not Shown)	1
5	1014481	Inner Arm	1
6	1014490	Outer Arm	1
7	1020240	Wdmt Motor Mount Arm	1
8	1014479	Rubber Traction Wheel & Wheel Key	1
9	1014327	12 Volt Motor Brushes (Not Shown)	1
10	1014276	110 Volt Motor Brushes (Not Shown)	1
	1014747	Lift Mate Hardware Bag	1
11	1014519	12" Rubber Poly Strap (Not Shown)	1
12	1024332	Nut Nyloc 5/8 - Pivot Nut	1
13	1002458	Bolt 5/8 - 11 x 4 SS Pivot Bolt	1
14	1019860	Bolt 5/16 x 3	2
15	1001807	Nut 5/16 Zinc Steel	2
16	1002608	5/16" Washers SS	4
17	1014564	5" Metal Band Straps	2
		Optional Equipment	1
18	1014389	20ft Battery Cable (Not Shown)	1
19	1014392	25ft Battery Cable (Not Shown)	1
20	1014399	30ft Battery Cable (Not Shown)	1

Exploded View

Use with previous page for part identification.



Troubleshooting		
Problem	Cause	Remedy
Motor will not run.	<ol style="list-style-type: none"> 1. Not connected to power source. 2. GFI button tripped. 3. Wiring and connections corroded, worn, or frayed. 4. Motor brushes worn, corroded, or need replacing. 	<ol style="list-style-type: none"> 1. Connect to power source. 2. Push in reset button on GFI. 3. Repair or replace. 4. Repair or replace.
12 Volt motor rotating in the wrong directions.	<ol style="list-style-type: none"> 1. Cable leads are reversed at the battery. 	<ol style="list-style-type: none"> 1. Switch the battery cable leads on the battery.
110 Volt motor rotating in the wrong direction.	<ol style="list-style-type: none"> 1. Call retailer. 	<ol style="list-style-type: none"> 1. Call retailer.
Rubber traction wheel slipping on lift wheel.	<ol style="list-style-type: none"> 1. Wet lift wheel. 2. Rubber poly strap not tensioned properly. 3. Incorrectly installed. 	<ol style="list-style-type: none"> 1. Dry off lift wheel. 2. Create more tension by stretching rubber poly strap to a new mounting position. 3. Review installation procedures.
The groove on the rubber traction wheel will not stay in place against the lift wheel.	<ol style="list-style-type: none"> 1. Rubber traction wheel not aligned properly. 2. 5/8" pivot bolt nut over tightened. 	<ol style="list-style-type: none"> 1. Review installation procedures. 2. Do not over tighten nut. Install and tighten per installation instructions.