



Firstmate™ Installation Manual and User's Guide  
May, 2003



# Warning

No user serviceable parts are located inside your **Firstmate™** unit. Installation and service should be performed by a qualified installer only.

**To avoid the risk of electric shock, always disconnect power to your dock before installing the Firstmate™ or any of its components.**

Use only cordless tools for installation. Failure to follow these instructions may result in injury or death.

Always securely tie off your vessel to your dock, Aqualogic Marine and its Parent company, Art Technologies, LLC. assumes no liability for damages resulting from the user's failure to securely restrain their vessel.

Never use your remote control without being present at the lift. If your lift is not raising or lowering in a level position, stop the lift and correct the problem.

Stay clear of the lift while it is in operation.

## Table of contents

### Installation Instructions

Topic	Page
Warnings	2
Before you begin	4
Component Checklist	4
Installing the blower box	4
Installing the pickup tube	4
Installing the receiver	5
Finishing the installation	5

### User's Guide

Topic	Page
Warnings	2
Before you begin	6
Programming the DOWN position	6
Setting the UP position	6
Programming the BOARD position	7
Using the keyfob	7
Using the Firstmate™	7

Using the manual override	8
Programming tips	8
Lift dynamics	8
Warranty	9

## Installation Instructions

### 1.0 Before you begin:

- 1.1 Read all warnings prior to attempting installation.
- 1.0 Inspect unit to verify receipt of all components.
- 1.1 Tools required: cordless drill, an appropriate drill bit for the mounting hardware used, 5/16" nut driver, tubing cutter or hacksaw, and wrenches for mounting hardware used.
- 1.2 Turn off power to the dock.

### 2.0 Component checklist:

- 2.1 Blower Cover with lid
- 2.2 Frame assembly with mounting hardware.
- 2.3 Receiver assembly w/ 14 foot receiver cable and antennae.
- 2.4 Keyfob (2ea) supplied
- 2.5 Pickup tube assembly with 20 foot hose, 5" hose clamp (1 ea), 2" hose clamp (2 ea).
- 2.6 Owner's manual (1 ea).

### 3.0 Installing the Blower Box:

- 3.0 Locate the desired position of blower box. Check to see that the power cord will reach the nearest power outlet. **The placement should be located with the blower box cover placed over the frame.**
- 3.1 Remove the blower box cover. Mark the 4 mounting holes and drill thru the dock decking.
- 3.2 Mount the frame to the dock using the supplied 5/16" x 2 1/2" bolts, washers and nuts. Do not mount the blower box cover at this time.

### 4.0 Installing the Pickup Tube:

- 4.1 Raise the boat and lift to the desired up position. (Note: The boat must be on the lift to assure correct sensor positioning)
- 4.2 Locate a suitable mounting position on the lift cross member nearest the blower box. (**Note:** if you have a drive on style lift the sensor tube should be mounted at the rear of the lift) Consideration should be given to minimizing the potential for interference of the pickup hose with the lift. A good rule of thumb is to run the pickup hose along the air tank hoses.
  
- 4.3 Attach the pickup tube to the cross member with the bottom of the tube approximately 3" above the water. It may be necessary to cut the bottom section of the PVC pickup tube to allow for clearance between the top of the pickup tube and the hull of the boat. Install the 2" hose clamps around the small diameter of the pickup tube just below the large diameter of the tube. Install the large 5" hose clamp around (or through) the cross member and through the small 2" hose clamps. Tighten the small hose clamps then tighten the large hose clamp. (**Note:** The pickup tube should be mounted vertically and perpendicular to the surface of the water) Attach one end of the sensor hose to the sensor assembly (Attached to the blower frame) and then the other end to the pickup tube. The hose must be pushed onto the fittings until it touches the yellow spacer on the brass fitting. Failure to do this will result in leaks and erratic sensor operation (Note: Putting a little liquid soap on the fitting eases the assembly process).
- 4.4 **Take extra care not to allow any water into the sensor hose as this will cause erratic operation.**

#### 5.0 Installing the Receiver:

- 5.0 Locate the mounting position of the receiver within 12 feet (including rise) of the blower box, near the roof of the dock. This location should be in a sheltered area of the dock minimizing the potential exposure to rain.
- 5.1 Mount the receiver with the antennae pointing **down, left or right but not up**. Remove double sided tape backing and press against post (surface must be clean).
- 5.2 Attach the Antennae.
- 5.3 Attach the receiver cable to the receiver. Run the cable to the blower box and install in the jack labeled "**REMOTE**" on the controller assembly.

#### 6.0 Finishing the installation:

- 6.0 Remove the lift hoses as necessary from the old blower box and mount them to the steel nipples (tank side of the **Firstmate™** valves).
- 6.1 Install the blower box cover using the supplied ¼" sheet metal screws and large diameter washers.
- 6.2 Plug the **Firstmate™** into the power outlet.
- 6.3 Restore power to the outlet.

**Congratulations!** You are now ready to program your **Firstmate™** controller. Please refer to your Owner's Manual for further instructions.

## User's Guide

### 1.0 Before you begin:

- 1.2 Read all warnings prior to programming or using your **Firstmate™** lift controller.
- 1.3 Read this entire manual before programming your unit.
- 1.4 Verify that the boat is on the lift and in the raised position. Check to see that the pickup tube is out of the water (approximately 3"). If not, press and hold (approximately 5 seconds) the **UP** switch until the blower turns on. When the pickup tube is out of the water, (approximately 3") press the **HOLD** switch to stop the blower. (**Note:** if unable to get the pickup tube out of the water refer back to the installation section of this manual)

### 2.0 Programming the DOWN position:

- 2.1 Make sure the boat is on the lift.
- 2.2 Press and hold (approximately 5 seconds) the **Down** switch. The valve(s) will open and the strobe will turn on.
- 2.3 After the lift has reached your desired down position, press the **HOLD** switch. The valve(s) will close and the strobe will turn off.
- 2.4 Press and hold (approximately 5 seconds) the **HOLD** switch until the unit displays "**SE**" (setup).
- 2.5 Press and hold (approximately 5 seconds) the **DOWN** switch until the display reads "**SA**" (saved). The down position is now saved.

### 3.0 Setting the UP position:

- 3.1 Make sure the boat is on the lift.
- 3.2 Press the **UP** switch. If the lift is already in the UP raised position, the display will read "--", if not, the blower will turn on and then shut off when the lift is in the UP position. The pickup tube may not be completely out of the water at this time, and the boat may not be at the desired UP position.
- 3.3 To raise the UP position of the lift to the desired height, press and hold (approximately 5 seconds) the **BOARD** switch until the display reads "**EA**" (Extra Air).

- 3.4 Press the **UP** switch and the display will read 1 (10 seconds of extra air), press the **UP** switch again and the display will read 2 (20 seconds of extra air). Each time the up button is pressed, the display will increase by one digit (increases the extra air by 10 seconds). Each time the **DOWN** switch is pressed, the display will decrease by one digit (decreases extra air time by 10 seconds). We suggest that you start with an initial setting of "3" (thirty seconds of extra air). Save the extra air setting by pressing and holding (approximately 5 seconds) the **BOARD** switch until the display reads "--".
- 3.5 With the lift in the UP position, press the **DOWN** switch (the valve(s) will open and the strobe will turn on). After the lift has reached the DOWN position, the valve(s) will close and the strobe will turn off. Press the "**UP**" switch, the valve(s) will open and the blower and strobe will turn on. When the lift reaches the new UP position, the blower and strobe will turn off.
- 3.6 If the lift is not set at the desired height, repeat steps 3.3 through 3.5.
- 3.7 The UP position is now saved.

#### 4.0 Programming the BOARD position:

- 4.1 After the UP and DOWN positions have been set, a default BOARD position is automatically set at approximately 50% of the travel of the lift between the UP and DOWN positions.
- 4.2 Make sure the boat is on the lift and in the UP position.
- 4.3 Press the **BOARD** switch. You will hear the valve(s) open. The valves will automatically close when the lift reaches the default BOARD position.
- 4.4 If the BOARD position is too low, press and hold (approximately 5 seconds) the **UP** switch until the valve(s) open and the blower turns on. When the lift reaches the desired level, press the **Hold** switch and the valve(s) will close and the blower and strobe will turn off. If the BOARD position is too high, press and hold (approximately 5 seconds) the **DOWN** switch until the valve(s) open and strobe turns on. When the lift reaches the desired level, press the **HOLD** switch to close the valve(s) and turn off the strobe.
- 4.5 After the lift has been set to the desired BOARD level, press and hold (approximately 5 seconds) the **HOLD** switch until the display reads "**SE**" (setup).
- 4.6 Press and hold (approximately 5 seconds) the **BOARD** switch until the display reads "**SA**" (saved). The BOARD level is now saved.

#### 5.0 Using the Keyfob:

- 5.1 Note that the Keyfob is not capable of programming any functions. All settings are programmed using the switches on the control module.
- 5.2 To prevent the accidental activation of a button on the keyfob, you must press and hold down the buttons for approximately one second for the **Firstmate™** to accept the command.
- 5.3 The keyfob buttons correspond to the following functions:
  - "1" = **UP** switch
  - "2" = **BOARD** switch
  - "3" = **DOWN** switch
  - Both "1" and "3" = AUXILIARY On/Off if optionally equipped.

#### 6.0 Using your **Firstmate™**.

- 6.1 Read all warnings prior to operating your **FIRSTMATE™**.

- 6.2 Always secure your boat to your dock when not in use, Aqualogic Marine assumes no liability for resulting damage.
- 6.3 Anytime the lift is in operation; the strobe light will turn on.
- 6.4 Pressing any switch while the lift is in operation, either on the keyfob or the control module, will stop the lift.
- 6.5 Holding a keyfob button too long will activate the controller and then deactivate the controller.
- 6.6 Pressing the **UP** and **DOWN** switches at the same time turns the optional AUXILIARY circuit ON/OFF.
- 6.7 While the **FIRSTMATE™** is trying to raise your lift to either the BOARD or UP position but does not detect movement of the lift within fifteen minutes, the blower will turn off and the display will read "**JA**" (Jammed lift). This prevents the blowers from running for extended periods of time in the event of a problem. **Warning: If a jammed condition occurs, stay clear of the lift and contact your lift manufacturer immediately.**
- 6.8 While the **FIRSTMATE™** is trying to lower the lift to the BOARD or DOWN position but does not detect movement of the lift within fifteen minutes, the valve(s) will be closed and the display will read "**JA**" (Jammed lift). **Warning: If a jammed condition occurs, stay clear of the lift and contact your lift manufacturer immediately.**
- 6.9 If the **FIRSTMATE™** detects a leak condition, it will automatically raise the lift. The display will alternately read "**AL**" and "**01**". The number will increase each time air is added to your lift. To reset the Alarm indication, press any switch. **Note: The leak detection is operable only when the lift has been stored in the UP position.**

Using the Manual Override:

- 6.10 The manual override may be used to raise or lower the lift. Push down on the override handle (approximately 1/2 inch) to disengage the valve from the transmission and turn to the desired function. When the lift has reached the desired level, press down and turn the handle to the HOLD position.

Programming Tips:

- 1.0 When programming the "**EA**" (Extra Air), start with 30 seconds, and then check the lift height. Add extra air as required to achieve the desired lift height. (**Note:** This is especially important for lifts with stop kits)
- 2.0 The **Firstmate™** control module can be operated in a manual UP mode or a manual DOWN mode. To enter the manual UP or DOWN mode, press and hold the corresponding switch until the function is activated (approximately 5 seconds). Press the **HOLD** switch to stop the manual modes.

Lift Dynamics:

When your boat and lift combination is in a transition state (i.e. rapid movement between the UP and Board positions, or the BOARD and DOWN positions) it is not possible to stop the lift from continuing the upward/downward movement until it has reached a neutral buoyancy position.

The weight of your boat will affect the location of your UP and BOARD positions. A heavily laden boat with full gas tanks will stop at lower levels than the same boat with nearly empty tanks.



## Warranty Statement:

Aqualogic Marine, Inc. warrants this product to the original retail purchaser (consumer) only, to be free from defects in material or workmanship.

The duration of this warranty, measured from the date of installation, is limited for a period of two years.

If the consumer discovers within this period a defect in material or workmanship, consumer must promptly notify Aqualogic in writing at the address identified herein. Notification must be received by Aqualogic on or before one month following expiration of the relevant warranty period. Within a reasonable time after such notification, Aqualogic will correct any defect in material or workmanship with either new or used replacement parts or it will replace the unit, at its election. All warranty service will be performed at Aqualogic's option, either on-site or at Aqualogic's service station. At Aqualogic's election, the consumer must deliver the unit, pre-paid, to the authorized service station. The consumer is responsible for all transportation and insurance charges for the unit to and from the authorized service station. Units shipped to the authorized service station must be insured and safely and securely packed, with a letter explaining the defect and a copy of the bill of sale or other proof of purchase must be enclosed. Upon receipt, Aqualogic, at its option, will either repair the unit or replace the unit.

The address of the authorized service station is as follows:  
Aqualogic Marine, Inc., #5 Chamber Drive, Washington, MO 63090.

The above warranty is subject to the following conditions:

- (1) You must retain your bill of sale or provide other proof of purchase;
- (2) These warranties are effective only if the product is purchased and operated within the U.S.A. or Puerto Rico;
- (3) Warranties extend only to defects in materials and workmanship as limited above and do not extend to usual wear, damage resulting from accident, unreasonable use, improper installation, improper maintenance or use in violation of the instructions furnished by Aqualogic or a unit which has been altered or modified.

In no event shall Aqualogic be liable for any special, incidental or consequential damages based on breach of warranty, breach of contract, negligence, strict tort, or any other legal theory. Such damages include, but are not limited to, loss of profits, loss of savings or revenue, loss of use or any associated equipment, costs of capital, costs of any substitute equipment, facilities or services, down time, claims of third parties, including customers, and injury to property.

TO THE FULL EXTENT ALLOWED BY LAW OF THE JURISDICTION THAT GOVERNS THE SALE OF THE PRODUCT, THIS EXPRESS WARRANTY EXCLUDES ANY AND ALL OTHER EXPRESSED WARRANTIES AND LIMITS THE DURATION OF ANY AND ALL IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE TO THE DURATION OF THE LIMITED WARRANTIES SET FORTH ABOVE.

WITH THE EXCEPTION OF ANY WARRANTIES IMPLIED BY STATE LAWS AS HEREBY LIMITED, THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, GUARANTEES, AGREEMENTS AND SIMILAR OBLIGATIONS OF MANUFACTURER OR SELLER WITH RESPECT TO THE REPAIR OR REPLACEMENT OF THE PRODUCT OR ITS PARTS.

TIME LIMIT TO BRING SUIT. ANY ACTION FOR BREACH OF WARRANTY MUST BE COMMENCED WITHIN THREE (3) MONTHS FOLLOWING THE EXPIRATION OF THE RELEVANT WARRANTY PERIOD.

SOME STATES DO NOT ALLOW LIMITATIONS ON WARRANTIES, OR ON REMEDIES FOR BREACH IN CERTAIN TRANSACTIONS. IN SUCH STATES, THE LIMITS HEREIN MAY NOT APPLY.